

BLM LIBRARY



88046667

BUREAU OF LAND MANAGEMENT
Library
DEW Service Center

BUREAU OF LAND MANAGEMENT

Library

Denver Service Center

BUREAU OF LAND MANAGEMENT

Library
Bureau of Land Management
Washington, D.C.

ANNUAL REPORT

DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

1909

U. S. GOVERNMENT PRINTING OFFICE

THE UNIVERSITY OF CHICAGO
LIBRARY
1000 S. MICHIGAN AVE.
CHICAGO, ILL. 60607

#1330434
ID # ~~8802147~~ 8804 6667

HD
181

A3

1904

pt. 3

ANNUAL REPORTS

OF THE

DEPARTMENT OF THE INTERIOR

FOR THE

FISCAL YEAR ENDED JUNE 30, 1904.

MISCELLANEOUS REPORTS.

PART III.

GOVERNOR OF ALASKA.

GOVERNOR OF HAWAII.

COMMISSIONER OF THE INTERIOR FOR PORTO RICO.

COMMISSIONER OF EDUCATION FOR PORTO RICO.

BUREAU OF LAND MANAGEMENT

Library

Denver Service Center

WASHINGTON:

GOVERNMENT PRINTING OFFICE.

1904.

CONTENTS.

	Page.
Report of the Governor of Alaska	1
Alaska as a possession.....	3
Population, by districts, estimated white.....	6
Transportation facilities.....	7
Transportation rates.....	8
Railroad facilities.....	9
Wagon roads.....	10
Trails.....	10
Laws enacted at the last session of Congress relating to.....	11
Road overseers.....	11
Municipal corporations.....	11
Insane.....	11
Coal lands.....	11
Railway construction.....	11
Lewis and Clark Exposition.....	12
Seal fisheries.....	12
Executive departments.....	12
Department of Justice.....	12
United States commissioners.....	13
Department of Agriculture.....	14, 38
Meteorological record.....	16
Bureau of Forestry.....	18
Game laws.....	19
Department of Commerce and Labor.....	19
Bureau of Immigration.....	20
Bureau of Fisheries.....	20
Bureau of Statistics.....	20
War Department.....	20
Military posts.....	20
Military telegraph.....	21
Fort Davis.....	21
Fort St. Michael.....	21
Fort Lisicum.....	21
Camp Skagway.....	21
Navy Department.....	22
Post-Office Department.....	23
Treasury Department.....	23
Internal revenue.....	24, 38
Public Health and Marine-Hospital Service.....	24
Revenue-Cutter Service.....	24
Interior Department.....	25
Bureau of Indian Affairs.....	25
Bureau of Education.....	25, 38
District Historical Laboratory and Museum.....	26
Louisiana Purchase Exposition exhibit.....	30
Salmon-canning industry.....	31
Mining industry.....	31
Placer-mining industry.....	31
Quartz-mining industry.....	32
Tin-mining industry.....	34
Copper-mining industry.....	34
Coal-mining industry.....	34
Petroleum deposits.....	35
Delegate to Congress.....	35
Official directory.....	37
District government.....	37

Report of the Governor of Alaska—Continued.

Page.

United States customs district.....	37
United States courts.....	37
Immigration inspector.....	38
Incorporated towns, list of.....	38
Post-offices and postmasters.....	38
Members of the Alaskan bar.....	40
Notaries public, appointment of.....	40
Newspapers in.....	41
Indian police.....	41
Civil government of, law providing for the.....	50
Corporations of, amendment and codification of the laws relating to.....	51
Coal-land laws, extension of same to the district of.....	54
Coal-land act, digest of the.....	55
Fur seals, revision of the rules governing the taking of, requested.....	57
Commerce.....	57
Merchandise, domestic and foreign, shipped from the United States to.....	57
Appendix A.—Homestead entries in.....	42
B.—Regulations for the protection of game.....	44
C.—Act to authorize the appointment of road overseers and to create road districts in the district of.....	48
D.—Act making further provision for a civil government for.....	50
E.—Act to amend and codify laws relating to municipal corporations.....	51
F.—Act to extend the coal-land laws to the district of.....	54
G.—Act for the relief of the Western Alaska Construction Company's railroad.....	56
H.—Joint resolution requesting the President to negotiate with Great Britain for a revision of the rules governing the taking of fur seals in the open waters of the North Pacific Ocean and Bering Sea.....	57
I.—Shipments of domestic merchandise from the United States.....	57
J.—Mail service, name of contractor, rate of pay, etc.....	70
K.—Report of transactions at custom-house.....	83
L.—Report of the surveyor-general.....	91
M.—Investigation of the mineral wealth.....	96
N.—Decision of United States district court for the district of Alaska in re naturalization of John Minook.....	106
O.—Population, schools, markets, cost of living, etc.....	117
P.—Size of, as compared with the United States.....	130
Q.—List of articles of foreign corporations filed in the office of secretary of.....	131
R.—Catalogue of exhibits of, at the Louisiana Purchase Exposition.....	133
S.—Awards for, approved by the superior jury of awards of the Louisiana Purchase Exposition.....	162

Report of the Governor of Hawaii

Islands composing, number and location of.....	165
Resources.....	167
Climate.....	168
Temperature.....	168
Rain.....	168
Health.....	168
Population.....	169
History and organization.....	169
Departments.....	169
County government.....	170
Labor conditions.....	170
General finances.....	174
Chinese fund.....	175
Fire claims.....	176
Embezzlement.....	177, 205
Internal revenue.....	177
Internal improvements.....	178
Light-houses.....	178
Public buildings, army, navy, Territorial, and private.....	179
Fisheries.....	180
Immediate legislation.....	181

Report of the Governor of Hawaii—Continued.

	Page.
Needed appropriations.....	183
Health conditions.....	185
Reports of the various departments of the government of.....	185
Consistence and appointments on the board of health.....	185
Duties of the board of health.....	186
Care of the indigent sick.....	186
Insane asylum.....	187
Leprosy.....	187
Mosquito campaign.....	189
Education and the public schools.....	189
Nationalities of pupils.....	191
Territorial teachers.....	192
Distribution of schools, teachers, and pupils.....	193
Ages of school children.....	194
Public schools.....	194
Schoolhouses and teachers' cottages.....	196
Lahainaluna educational establishment.....	197
Waialea Industrial School for Boys.....	197
Public lands and land laws.....	198
Land ownership.....	198
Land act, digest of the.....	200
Land office.....	204
Land sales.....	207
Island of Oahu.....	212
Crown lands.....	212
Island of Maui.....	214
Island of Molokai.....	216
Island of Lanai.....	216
Island of Kauai.....	216
Island of Hawaii.....	217
Public works department.....	220
Salaries and pay rolls.....	221
Road work and bridges.....	222
Water supply and systems.....	223
Honolulu Harbor.....	223
Wharfage system and improvements.....	224
School buildings constructed.....	225
Public buildings.....	225
Improvements.....	226
Collections by public works department.....	228
Finances.....	229
Bureau of taxes.....	230
Insurance.....	230
Bubonic plague.....	231
Public improvement bonds, first issue of.....	231
Financial conditions.....	233
Bonded debt.....	234
Taxable property.....	235
Foreign corporations.....	236
Auditing department.....	238
Judiciary department.....	242
Crimes and criminal record.....	243
Federal law work.....	246
Legislative finances.....	246
Enforcing navigation laws.....	247
Internal-revenue laws.....	247
Infraction of customs laws.....	248
Attorney-general's department.....	248
County act litigation.....	249
Fishery cases.....	249
Infamous crime decision.....	250
Police department.....	251
High sheriff and deputy sheriffs of the Territory.....	251
Department of survey.....	261
Meteorological work.....	263
Entomology.....	265
Forestry.....	266

Report of the Commissioner of Education for Porto Rico—Continued.		Page.
Exhibit III.—		
Reports on special schools and on special work.....		703
Report of the supervising principal of industrial schools.....		703
Report of high and graded schools.....		706
Report of the supervisor of drawing.....		711
Exhibit IV.—		
Reports of the secretary-treasurer of the University of Porto Rico, principal of the normal department, principal of the Practice School, and director of agriculture		714
Report of the treasurer.....		714
Report of the principal of the normal department.....		717
Report of the principal of the Practice School.....		720
Report of the director of agriculture of the University of Porto Rico.....		721
Exhibit V.—		
Reports on Porto Rican teachers' summer-study trip to the United States..		724

REPORT OF THE GOVERNOR OF ALASKA.

REPORT

OF THE

GOVERNOR OF ALASKA.

OFFICE OF THE EXECUTIVE,
Sitka, Alaska, October 1, 1904.

SIR: I have the honor to submit herewith my annual report on affairs in Alaska for 1904:

ALASKA AS A POSSESSION.

SEC. 14. That nothing in this act contained shall in any wise be taken or construed to imply or indicate that the territory in the district of Alaska, or any portion thereof, shall at any time hereafter be admitted as a State. (Cong. Record, p. 3250, March 10, 1904.)

The above was offered by Senator Platt, of Connecticut, as an amendment to Senate bill 3339, providing for the election of a Delegate to the House of Representatives from the district of Alaska. Alaska bills had been under consideration nearly all afternoon: S. 3728, providing for the construction and maintenance of roads, etc.; S. 3338, to amend and codify laws relating to municipal corporations; S. 3336, to provide for an additional district judge, had all occupied the time and attention of the Senate and had been favorably acted upon. Next came S. 3339, like a last straw. The above amendment was thrown into the discussion of the bill like a bucket of ice-cold water. It fairly took their breath, and some Senators could hardly trust their ears. Senator Foraker asked for a restatement of it and the Secretary read it again. Senator Beveridge, chairman of Committee on Territories, and who had charge of the above bills, seemed dazed, and immediately asked for a second reading of the amendment, and when the Secretary read it again the Senator acknowledged that he had finally heard it, but remarked twice that he wanted to think about it a little while.

Since that day others have been thinking not only a little while but long and hard. We who have come to Alaska to build our homes in the pursuit of happiness are most vitally concerned. The proffered amendment, in text and spirit, proposes to make Alaska a political inferno that all who enter are to leave hope behind. It seems to us that the time has arrived for this question to be discussed and thrashed out on the floors of both Houses. Let a halt be called while members go at it with flails and beat every grain from the straw and chaff.

We have held possession of Alaska for thirty-seven years. Article III of the treaty is plain enough:

The inhabitants of the ceded Territory, according to their choice, reserving their natural allegiance, may return to Russia within three years; but if they should prefer to remain in the ceded Territory, they, with the exception of uncivilized native tribes, shall be admitted to the enjoyment of all the rights, advantages, and immunities of citizens of the United States, and shall be maintained and protected in the free enjoyment of their liberty, property, and religion. The uncivilized tribes will be subject to such laws and regulations as the United States may from time to time adopt in regard to aboriginal tribes of the country.

The Senate knew that the Territory acquired by the treaty of cession was noncontiguous; yet it ratified these articles, and the inhabitants in the Territory are entitled to be admitted to the enjoyment of all the rights, etc., of citizens of the United States. Shall citizens of the United States who have crossed the intervening province of British Columbia, or who have embarked on ocean-going vessels to settle in Alaska—to make it their home—be admitted to the enjoyment of fewer rights and advantages than were guaranteed to those who remained longer than three years? Can American citizens in Alaska, who fulfill all possible qualifications as to numbers, intelligence, industry, sobriety, patriotism, and morality, come to Congress by their chosen representative and demand as a right that the republican form of government which they have created and ordained here, be admitted as a State of the Union? Senator Sumner was present during the hours of the night when the treaty was drawn up and signed. He was imbued with its spirit and purpose. Listen to the wonderful words in his speech on the cession of Russian America to the United States, delivered in the Senate ten days after that instrument was signed, under the head of "Extension of republican institutions:"

More than the extension of dominion is the extension of republican institutions, which is a traditional aspiration. It was in this spirit that independence was achieved. In the name of human rights our fathers overthrew the kingly power, whose representative was George the Third. They set themselves openly against this form of government. They were against it for themselves, and offered their example to mankind. They were Roman in character, and turned to Roman lessons. With a cynical austerity the early Cato said that kings were "carniverous animals," and at his instance the Roman Senate decreed that no king should be allowed within the gates of the city. A kindred sentiment, with less austerity of form, has been received from our fathers; but our city can be nothing less than the North American continent, with its gates on all the surrounding seas.

John Adams, in the preface to his "Defense of the American Constitution," written in London, where he resided at the time as minister, and dated January 1, 1787, at Grosvenor square, the central seat of aristocratic fashion, after exposing the fabulous origin of the kingly power in contrast with the simple origin of our republican Constitution, thus for a moment lifts the curtain of the future: "Thirteen governments," he says plainly, "thus founded on the natural authority of the people alone, and without any pretense of miracle or mystery, and which are destined to spread over the northern part of that whole quarter of the globe, is a great point gained in favor of the rights of mankind." (John Adams's Works, vol. 4, p. 293.) Thus, according to this prophetic minister, even at that early day was the destiny of the Republic manifest. It was to spread over the northern part of the American quarter of the globe, and it was to be a support to the rights of mankind.

By the text of our Constitution the United States are bound to guarantee a "Republican form of government" to every State in this Union; but this obligation, which is only applicable at home, is an unquestionable indication of the national aspiration everywhere. The Republic is something more than a local policy; it is a general principle, not to be forgotten at any time, especially when the opportunity is presented of bringing an immense region within its influence. Elsewhere it has for the present failed; but on this account our example is more important. Who can forget the generous lament of Lord Byron, whose passion for freedom was not

mitigated by his rank as an hereditary legislator of England, when he exclaims in memorable verse:

"The name of commonwealth is past and gone
O'er the three fractions of the groaning globe!"

Who can forget the salutation which the poet sends to the "one great clime," which, nursed in freedom, enjoys what he calls "the proud distinction" of not being confounded with other lands—

"Whose sons must bow them at a monarch's motion,
As if his senseless scepter were a wand!"

The present treaty is a visible step in the occupation of the whole North American continent. As such it will be recognized by the world and accepted by the American people. But the treaty involves something more. By it we dismiss one more monarch from this continent. One by one they have retired—first France, then Spain, then France again, and now Russia—all giving way to that absorbing unity which is declared in the national motto, "E Pluribus Unum."

It is in this spirit and hope that we have come to build up our homes, schools, churches, and political institutions. The children of the native men who were regarded as uncivilized forty years ago are joining us in patriotism and industry. They rejoice to unfurl the Stars and Stripes in front of their houses and from their canoes, and celebrate the Fourth of July in a truly American fashion.

Such a spirit as is manifested by the above amendment is disturbing and discouraging. The Senators who visited the country last year to investigate conditions were impressed with the fact that we have long suffered from neglect. Senator Nelson has emphasized this fact several times in his speeches on the above bill. So disquieting has this proffered amendment been that it aroused Judge James Wickersham to speak publicly at Fairbanks as follows:

Shall the people of Alaska be required to organize here a sovereign independent nation, the Republic of Alaska, with a Federal Constitution drawn after that form which our forefathers adopted for the United States? Shall the Republic of Alaska be divided into four or more States, each with a State constitution similar to those adopted in the United States, with similar local, county, and municipal governments? Shall the Republic of Alaska be divided into four States—Sitka, with its capital at Juneau; Alaska, with its capital at Valdez; Sumner, with its capital at Nome; and Tanana, with its capital at Fairbanks? Or shall these great natural subdivisions of this northland, when in proper time they shall have the necessary population, be admitted as States into the Union of the United States?

We believe that the great mass of the voters of the country, irrespective of party, want Alaska to become an integral part of the United States by the extension of our institutions as fast as conditions warrant, and that when they have opportunity to express themselves at the polls they will send men to Congress to voice their sentiments. Picture a household scene in Alaska last March. The mail has arrived and brought the Congressional Record for March 10. After dinner all assembled around the sitting-room table and the papers are opened. The father soon finds the doings of that memorable day, and when he has read the proposed amendment he looks at his boys and girls who are intensely interested with their part of the mail—Youth's Companion, St. Nicholas, Little Folks, etc. They were in school that day and had lessons in United States history of the achievements of the strong men who settled in Massachusetts, Connecticut, and Virginia. Imagine the faintness of heart of this father after reflecting over what he has read and looks into those happy faces and thinks of their future in the land of their birth. This is reality and not fancy. If Senator Platt speaks as the representative of the people of Connecticut, it must be of that deteriorated stock which has been so much discussed

in the press of that State, and not the stock of the hardy New Englander from the time of John Adams down to Charles Sumner.

POPULATION.

It would be advantageous every way if the population of this district could be correctly stated. Many editorial writers and a few Congressmen begin their arguments by assuming that Alaska has a white population of 100,000 people. The census of 1900 was taken with more care and preparation than any previous one and may be taken as fairly accurate. Nome was a booming mining center, and Skagway was a bustling place when the enumerator appeared in the early summer of that year. The total, natives and all, summed up 63,592. Nome was given credit for 12,488 and Skagway 3,117. Great changes have occurred since 1900. New discoveries of rich placer ground have been made, and as a consequence stampedes have occurred. This has been the case on the Tanana, and a new town, Fairbanks, has sprung into existence. The several small towns along the Yukon River have been almost deserted. Work in the older mining camps has gotten down to a steady basis and much of the population in these migrate with the seasons; they move north in the spring and south when the water begins to freeze in the sluice boxes in the fall, keeping time pretty well with the wild geese. In some places, however, more winter work is being accomplished profitably.

The following is the best estimate that can be made in this office of the white population of the district. It is the result of much correspondence and conference with people from the various sections.

ESTIMATE OF WHITE POPULATION.

Ketchikan district.....	1,800
Wrangell district.....	250
Petersburg district.....	75
Treadwell, Douglas, Juneau and vicinity.....	5,000
Haines and Porcupine.....	500
Skagway.....	1,150
Eagle, American Creek, and Seventymile.....	300
Fortymile district.....	400
Fairbanks district.....	8,000
Rampart district.....	150
Fort Gibbon.....	50
Circle and vicinity.....	150
Valdez and Copper River.....	1,000
St. Michael and places on Yukon River.....	200
Nome and other places on Seward Peninsula.....	5,000
Bristol Bay.....	75
Unalaska and Dutch Harbor.....	50
Unga and Shumagin.....	150
Chignik to Kodiak and vicinity.....	200
Cook Inlet and Kenai Peninsula, and Seward.....	400
Kayak, Yakataga, and Yakutat.....	450
Chichagoff and Admiralty islands.....	125
Sitka and Baranoff Island.....	500
Shakan and west coast Prince of Wales Island.....	75
Koyukuk and northern part of district.....	500
Total.....	26,550

This is a disappointment and will provoke much criticism. Those who have steadily maintained that the number is more than four times greater, can produce their estimates for comparison. There is no criticism to be made on the character of the population, save only that it

is made up too little of families and groups of families. For intelligence, bravery, and endurance it is much above the average of any State. The conditions have not been inviting to the weak and infirm. An influx of good New England girls would be a very acceptable addition to our numbers.

Many will wonder why the population is so small. A number of causes may be assigned. First, the large area that was called the frontier was more accessible and inviting to every class of immigrants; second, the absence of any definite and reliable information concerning the country and its possible resources; third, the neglect and positive negative legislation by Congress in refusing to allow a Delegate, the extension of the homestead and other land laws. All these and other things combined have made an immense and almost permanent barrier along the way of Alaska's advancement. It is the plain truth that to-day the country is possessed by a small abiding number of people. Alaska needs people. Her resources are ample to engage millions and to sustain them in comfort and luxury. Congress is awakening to a sense of duty. A great step forward was taken March 3, 1903, by the extension of a liberal homestead law, allowing 320 acres to each bona fide settler.

There has been no marked change in the native population during the past year. The Thlingits, Hydahs, and Tsimshians of southeastern Alaska are adjusting themselves rapidly to civilized life, and for the most part are a vigorous lot of people. Some communities have been worsted by the vices which they have taken on from the whites, but most of them have now passed the severe state, and are beginning to increase slowly. The Aleuts have no doubt decreased some, for it has been difficult for them to turn from a hunting state to the faithful, prompt, and sober ways required in the canneries and in the mines. On the Yukon, Tanana, and Copper rivers there has been no noticeable increase. The Eskimos on the Yukon delta and to the northward have probably held their own since their terrible affliction four years ago. There has possibly been a small increase in the whole number of natives since the census of 1900, which made the total 29,536.

TRANSPORTATION.

The visiting Senators a year ago were profoundly impressed with the importance of this question. It is simple enough for the southeast portion and all the ocean rim of the country, but shallow deltas to the great rivers and high mountain ranges prevent people from reaching the interior and great heart of the land except by overphysical exertion and excessive cost. Freight is conveyed from markets on Puget Sound on ocean-going steamships to Valdez at reasonable cost. Slate Creek is a mining camp on a branch of the Copper River, about 200 miles from Valdez. The miners begin to take in their supplies with horses, dogs, and sleds in the winter, and it requires three months' hard labor to convey sufficient necessities, such as beans, flour, bacon, sugar, tea, milk, butter, and canned vegetables, to this camp. They go out in February and March, and if the government pack train has not gone ahead and broken trail, the mushers must do it; 2 and 3 miles a day at this is all that can be accomplished in many parts of the journey. A horse in good condition will pull up 400 pounds to top of the divide. Many relays must be made here, and at times the wind is

so violent for several days that neither man nor beast can stand up against it. When you come to inquire about the loads upon the sleds you find that one-half or a little more of the weight is made up of oats in sacks and the best hay in double compressed bales. There is no other way. When the divide has been crossed and the river bottoms have been reached, traveling, when the trail has been broken, is not bad, and an average horse will go on comfortably drawing 3,000 to 3,500 pounds. But at times the weather moderates and the water starts to flow over the river ice. This occasions not only delay, but at times loss of outfit, as was the case this year with one large party bound for the Nazina district.

After the mine owner has reached Slate Creek and begins to calculate the cost per pound of his outfit, he finds it amounts to between 30 and 33 cents per pound gross weight. This is the lowest under the best possible circumstances at present. Now, when this miner of Slate Creek reaches his destination, he must not lose time, for all the fuel he is to use for the summer must be gathered before the snow melts. The reader must bear in mind that the snow in the interior river valleys is only 18 or 20 inches on the level—very much unlike the depth on the coast ranges; when the sun begins to warm the earth it disappears rapidly. If the mine owner should be so unfortunate as not to get in his outfit over the winter trail, or but little, and should be forced to supply his camp by pack train over the summer trail, he will reckon the cost from 88 cents to \$1 per pound. At Copper Center, 100 miles from Valdez, all articles have an added freight cost of from 20 to 25 cents per pound. At the road house the cost of supper, lodging, and breakfast for one man, and night and morning feed for horse, was \$7. At other camps on the Copper River and its tributaries the conditions are similar. It is the same on the Sushitna, where mines have been worked this season. Conditions at Fairbanks are relieved somewhat because stern-wheel vessels of shallow draft are able to ascend the Tanana. If the reader will refer to the price lists given in the appendix, he will learn that articles of necessity sell at a tremendous advance beyond what they can be bought at tide water. Some men go through all this hardship and pay these exorbitant prices, work their claims, come out with a contented mind in the fall and go below for a few months' change. Nearly everyone—to a man—has faith in the country, and good miners tell of areas of placer ground that would yield from \$3 to \$7 per day to thousands of men. Miners on Slate Creek this season received from \$10 to \$12.50 per day for their labor. There is not only this certainty of an extensive mining region, but there is also the certainty that vast expanses are fit for stock raising and profitable agriculture.

Three or four railroads across Alaska will open the country for immediate settlement. The Rosebud Reservation was thrown open this year, and for 2,400 possible locations there were 107,000 registrations of applicants. We are assured that land in Nebraska that sold for \$25 an acre in 1896 now sells at \$50, and as high as \$85 an acre. There is no longer a frontier. The reclamation of arid wastes will be necessarily slow, and the hosts who are hungering for land can not be satisfied. We believe that Congress will be acting wisely to extend aid to railroad building here. Railroads are the only adequate means of transportation into the great valleys. The construction across the coast range, and the construction and maintenance of snowsheds, will

be costly. Labor will be dearer than in the States, and all materials and supplies will have an added cost of ocean freight; and yet these, on account of the possibility of traffic by sea, may be laid down on the shores of our harbors at prices much less than prevail where railroad construction is going on in the western Territories. If Congress will guarantee the interests on bonds at a certain number of dollars per mile and let the bonds run thirty years, the markets would furnish the money at once and the roads would be built in a short time under modern methods of construction. Congress can make reasonable requirements. A certain percentage of the gross receipts should be set aside toward paying interest on the bonds; mails and Government supplies to have preference and to be carried at rates favorable to the Government; bona fide settlers should have minimum rates for families, household goods, stock, seeds, and farm implements. As there will be no land grants, except for right of way, stations, and terminals, the first settler will select the choice places along the line of road, and there will no doubt be a paying traffic from the first, for we may rest assured that as soon as there is an assurance that roads will be built, the people will come in multitudes. This transportation problem for Alaska is a proper one for Congress to take up and solve. The mistakes that may have been made in former legislation for the aid of railroad building are known and can be avoided. A few mistakes should not prejudice legislators and make them blind to the wonderful results which followed the building of the Pacific roads across the continent. Thoughtful men who have given this matter earnest consideration, and who are acquainted with the character of the resources of the country through which these roads will pass, believe that the Government will not lose one dollar by its guaranty.

Railroad construction has begun. Last year a sawmill and cannery were built at Yakutat. A standard-gauge road from the cannery has been built a distance of $9\frac{1}{4}$ miles to Setuk River. This stream has furnished the cannery most of the salmon. They were transported on flat cars over the road. The experiment has been satisfactory, and no doubt in time the road will be extended 40 miles to Dry Bay where the Alsek River empties on a sandy beach. This will open up a considerable amount of land capable of settlement. This is in the nature of a private enterprise.

At the head of Resurrection Bay, on Kenai Peninsula, the Alaska Central Railway Company has built a large substantial wharf at which ocean vessels can land. The beginning of a standard-gauge road is on this wharf, and it runs along the shore of the bay and up the valley toward Kenai Lake. Early in September, 11 miles of road was completed, enough to run a 50-ton locomotive and loaded flat cars over the track. At that time 4 miles more of grading were nearing completion and the right of way cleared out to the lake, which is about 25 miles from Seward, the town which has been laid out near the wharf site. The grade of the road is very gentle as far as the lake. The road passes through a good belt of timber, which is ample for nearly all the purposes of construction. Colonel Swanitz, the engineer in charge, reports the spruce as superior for piles and trestles. They have a sawmill which cuts all bridge timbers. Nearly all the cross-ties are pole ties hewed from small spruce. The whole is an excellent showing for the first season's work beginning in March last. It is the purpose of this company to go on up the peninsula and cross Turnagain Arm,

and advance along Knik Arm, where they expect to tap valuable coal deposits, which they can mine and bring to their wharf at small cost. It is their intention to push on toward the Tanana.

WAGON ROADS.

While on this subject of transportation in Alaska it should be noted that the people of Valdez have set their hearts upon a wagon road from their town to the Copper River Valley, and they were much elated when Senate bill 3728, providing for the construction and maintenance of roads, passed that body last March. They were correspondingly depressed when the session closed and the bill failed in the House. A gleam of hope was left for the army bill, approved April 23, containing the following:

For a survey and estimate of cost of a wagon road from Valdez to Fort Egbert (Eagle) on the Yukon River, to be made under the direction of the Secretary of War, twenty-five thousand dollars to be immediately available; said survey and estimate herein provided shall be submitted to Congress at the earliest practicable day.

This work was assigned to Maj. John Millis, of the Engineer Corps, located at Seattle, Wash. A sufficiently large number of surveyors and helpers and all their necessary outfits of pack animals and supplies were sent to Alaska under the guidance and direction of the surveyor in chief, Mr. Clapp. The work was well executed and finished in the early part of September, and it will no doubt be very valuable to Congress to guide it correctly whether it elects to build wagon roads or railroads.

TRAILS.

A trail is better than nothing; it is not so good as a wagon road; it is as far behind the latter as a wagon road is behind the railroad. If one wants to know the goodness and badness and the horror and danger of a trail in Alaska, let him mount a horse at Valdez and travel the so-called Government trail to Copper Center and return. And we are told this is the best part of the trail to Fort Egbert. It has its good places around the canyons on mid-mountain slope, where to miss a step one will plunge a thousand feet or more. The bridges over the larger streams are as good, perhaps, as can be made of round timbers, but they will be unsafe in one or two seasons more; the little bridges and corduroys on wet and swampy places are allurements and snares, for a horse must make a desperate plunge and struggle to get on, and immediately repeat the plunge and struggle when he gets off. One of these bridges is at the head of Lucky Boy Lake. A horse to reach it must wade in muck and water to his belly for 200 feet, and when reached few horses are able to scale it. The other end is just the same. Yet mushers tell us that this part of the trail is a boulevard when compared with the part near Mantasta.

The above-mentioned army bill contained another paragraph as follows:

For surveying and locating a military trail, under the direction of the Secretary of War, by the shortest and most practicable route, between the Yukon River and Coldfoot, on the Koyukuk River, twenty-five hundred dollars, to be immediately available, and a report and estimate upon said trail to be submitted to Congress at the earliest practicable day.

A noted preacher used to exhort his hearers to shine like the sun; but if not like the sun, then like the moon, and if not like the moon, then like a star, and if not like a star, then like a tallow candle. It is

in some such spirit that we appeal for help in transportation. If Congress can not bring itself to aid us to railroads, then we shall be grateful for wagon roads; and if they are impossible, let us have trails; and if not trails, we will wait, for all things come to those who wait. The roads are bound to be built. The American spirit animates the movement. Governor Gilpin's dream of a "cosmopolitan railway" will be realized.

LAWS FOR ALASKA ENACTED AT THE LAST SESSION OF CONGRESS.

The paragraphs in the army bill for the survey of road and trail have been noticed above.

ROAD OVERSEERS.

This act was approved April 27, 1904. It provides for the appointment of road overseers by United States commissioners in each precinct on the first Monday in April of each year. This law will be in force after that date in 1905. (See Appendix C for text of the law.)

INSANE.

On April 28, 1904, an act was approved, which law is amendatory and supplemental to the law on this subject which was approved June 6, 1900. (See Appendix D for text of same.) This amendment was dictated by experience.

MUNICIPAL CORPORATIONS.

On the same day, April 28, 1904, an act to amend and codify the laws relating to municipal corporations was approved. We think that Congress has acted wisely in our behalf in granting us this measure for local self-government. Any community of 300 or more permanent inhabitants may take advantage of it. Separated and self-centered as nearly all of our towns are, it is right that they should be enabled to legally attend to their immediate affairs. Those who are not content to handle matters in their own towns, but wish to reach out and run other places, feel circumscribed and give vent at times to their complaints in a spectacular manner. The great majority of the town residents are well satisfied with these provisions for self-government under present conditions. (For text of this law see Appendix E.)

COAL LANDS.

On the same day, also, April 28, 1904, an act amending the coal-land laws which have been extended to Alaska in 1900 was approved. The laws were inoperative because locations must be made on surveyed lands. We have no lands which have been surveyed for entry. This amendment enables those who have located and developed coal mines upon unsurveyed lands to proceed at their own expense for surveys, and when all provisions of law and regulations of the Department are complied with, patent will issue for the land. The rate is \$10 per acre. The text of this law and a digest of the same by the General Land Office are given in Appendix F. Those concerned will value them.

RAILWAY CONSTRUCTION TIME EXTENDED.

On April 9, 1904, an act for the relief of the Western Alaska Construction Company was approved. They are granted till December 31, 1904, to make proper filings with the Secretary of the Interior for the first section of 20 miles of the proposed railroad. The law is given in Appendix G.

LEWIS AND CLARK EXPOSITION.

Section 3 of the act authorizing the Government of the United States to participate in the Lewis and Clark Centennial Exposition pertains to Alaska, and is as follows:

That the Secretary of the Interior is hereby authorized to aid the inhabitants of the district of Alaska in providing and maintaining an appropriate and creditable exhibit of the products and resources of said district at the said Lewis and Clark Centennial Exposition, and for that purpose he is authorized to appoint one or more persons to supervise the selection, purchase, preparation, transportation, arrangement, installation, safe-keeping, exhibition, and return of such articles as may be exhibited from said district at said exposition; and he is hereby authorized to select so much of the exhibit of the district of Alaska at the Louisiana Purchase Exposition at the city of Saint Louis, in the year nineteen hundred and four, as he may deem necessary for the purpose of making said exhibit at the Lewis and Clark Centennial Exposition, and that the cost of said exhibit of said district of Alaska, including such selection, purchase, preparation, transportation, arrangement, installation, safe-keeping, exhibition, and return of the articles so exhibited shall not exceed the sum of twenty-five thousand dollars, which sum is hereby appropriated out of any money in the Treasury not otherwise appropriated.

SEAL FISHERIES.

On April 8, 1904, a joint resolution of Congress was approved. It requests the President to negotiate with the Government of Great Britain for a revision of the rules which were established in 1893 on the fur-seal grounds. The President is also requested to negotiate with Russia and Japan on the same subject; but as neither of these powers has been in a frame of mind for such diplomatic intercourse during the past six months, doubtless no movement in the matter has been undertaken. We are right in seeking a review and revision of the rules and regulations which have governed the taking of fur seals since they were established in Paris, August 16, 1893. (See Appendix H for resolution.)

EXECUTIVE DEPARTMENTS.

The Department of State is the only one which is not directly represented in Alaska.

DEPARTMENT OF JUSTICE.

Alaska is divided into three divisions for judicial purposes, and in each there is organized a full United States district court. The judges who preside over these courts have an annual salary each of \$5,000. Congress will do well to consider whether this is sufficient compensation for the high character of the service required. Men who perform such work elsewhere are not deprived of many things which they find altogether lacking in Alaska. A man who sits to try causes here ought to keep himself aloof from all local enterprises as much as possible, for at any time he may be embarrassed by complications which could not be anticipated. This is not so with other officers of the court. It would be good public policy to increase the salary of the Alaska judges. People in division No. 3 complain that their court facilities are altogether inadequate. A term was held in Valdez last October, and since that time the people in that town have been waiting for an opportunity to legally adjust their affairs. Several murders have been committed, and the accused have been awaiting trial for months. Witnesses must be detained from their homes and lawful

pursuits. The delays are so vexatious and expensive that many criminals go unpunished, and many innocent men conclude that it is not worth while to attempt to have their wrongs righted. Important witnesses do not care to be held in custody for a year before they can testify. Since early spring Judge Wickersham's time has been taken up along the Yukon River and at Fairbanks. Five thousand people have stampeded to that camp, and no doubt their trials and troubles can keep a court busy much of its time. Our visiting Senators last year gave this state of affairs their earnest attention, and the bill which they had drawn and passed through their body would have met the difficulty and would have corrected it if it had become law.

On the shores of Bristol Bay there were collected this summer between 7,000 and 8,000 persons connected with the various canneries. The whole rim of the Pacific appears to have been represented—Chinese, Japanese, Kanakas, men from Guam and the Philippines, Norwegians, Swedes, and Finns were there, and Porto Rico also was well represented. There is a United States commissioner and a deputy United States marshal there, but they are perfectly helpless, for they have no strong arm back of them to command the respect of such a motley array of men, many of whom are desperate villains. Superintendents are liable to condone crime, for they do not purpose to have themselves or their crews taken hundreds of miles to await the action of some future term of court. Their business is to put up the season's pack of fish. These men, of course, do not want crime and will do all possible to prevent it, but when it occurs it is their care to keep away from the courts. Two Japs murdered one of their fellows at Nushagak by stabbing him viciously in the back and on the head many times. Another murder was committed at Karluk, and a most heinous case of rape upon a bright and intelligent girl of 16 living near one of the canneries on Bristol Bay. This is a horrible state of affairs. This past season the criminal element seems to have grown bolder and more defiant. The remedy is, to create the fourth judicial division and furnish it with a proper seagoing steamer, to be under the custody of the marshal and at the command of the court. It should be equipped with the best small arms and a Gatling gun and ammunition. All the communities which are along the thousands of miles of shore line of Kenai Peninsula, Cooks Inlet, Kodiak, Alaska Peninsula, Shumagin, Aleutian chain, and Bristol Bay can be visited in season, and as a consequence there will be a wholesome respect for law and order.

UNITED STATES COMMISSIONERS.

These officers in Alaska have the same name as other court commissioners, but their jurisdiction is far greater. They can sit as committing magistrates; as justices of the peace to try civil cases where the amount involved is \$1,000 and less; can try criminal cases, and, in some cases, sentence to a year's imprisonment; they are clothed with full authority as probate judges; they act as coroners, notaries, and recorders of precincts; they are appointed by the judges and receive fees for compensation. There is, really, no appeal from a commissioner's court to the district court, for the judge usually appoints some particular protégé, and he feels bound to sustain his man. It is noticed that the appointments to nearly all the places which pay best are filled by persons who are peculiarly related, socially or politically, to the judge. The attorneys and their clients understand this and say,

What is the use to appeal? There is a way out of this, by providing that the governor may appoint these officers. The judge can not then be suspected of anxiety to sustain the wrong or arbitrary doings of a commissioner. This officer will know that his acts are liable to be reviewed at any time by a judge who has no particular concern for him.

The fee system, as it is practiced in these commissioners' courts, is an abomination. It works against the public peace and welfare to clothe an officer with such great authority and have him depend on fees for compensation. Unless there is trouble, how can he live? Trouble breeders are the really welcomed visitors at his court. The Judiciary Committees of both Houses of Congress should take up this matter of commissioners for Alaska and amend the law for their appointment and compensation. The fees allowed are too high for the service rendered. The good of the community will be served better by placing commissioners and deputy marshals on salaries. One commissioner in the Kayak district was not content to charge the high legal rate for recording, but charged a flat rate of \$5 for nearly every kind of instrument. His extortion has amounted to thousands of dollars, for the locations of oil and coal lands have been very numerous. While this officer has been removed from the commissionership he has not been made to disgorge the amount taken illegally, and still more wonderful he has been appointed assistant United States attorney at that place.

The boarding and working of United States prisoners who have been sentenced for crimes against the laws should have earnest consideration by the Department of Justice. It will thus be seen that this Department has an extensive business in Alaska; in fact its officers have our property and lives in their keeping, and every effort should be made to keep the judiciary beyond reproach to afford adequate protection to the weakest community.

William A. Day, assistant to the Attorney-General, has visited Alaska this summer. He has touched at all the important places in the southeastern section and has listened to anyone who had a grievance. He went down the Yukon and up the Tanana to Fairbanks; thence to Nome. The revenue cutter *Rush* transported him to Dutch Harbor, Valdez, Sitka, and back again to Juneau. It is fortunate that such an officer so near the head of this Department has made such a journey, and has so freely come into contact with all classes of people. It was understood that he was in a great measure the personal representative of the President. We shall await the results of his report, whether it be public or private, with much interest.

DEPARTMENT OF AGRICULTURE.

This Department is represented in its divisions of experiment stations by Prof. C. C. Georgeson, who is located at Sitka. A piece of land near the town has been selected and a number of acres cleared and put under cultivation. They have built a living house, tool house, and barn upon the ground, and the work of cultivation has been going on and everything from the clearing of the ground up to the raising of plants is noted and tabulated. One by one as successes or failures occur they are noted, and the work has been going on in this way for the past four years, and these results are made known in Professor Georgeson's annual reports. Now he is devoting his attention largely to the nursery line in planting all kinds of hardy fruit-bearing trees,

and the experiments in budding and grafting and cultivating fruit-bearing shrubs, such as currants, gooseberries, raspberries, and the like. He now has on hand many thousands of these ready for distribution through the Territory. Under his direction there are three other stations, one located at Kenai, on Kenai Peninsula, another at Copper Center, 105 miles from Valdez at the head of Prince William Sound, and another is at Rampart, on the Yukon River. The work performed and the results obtained at all of these stations are worthy of careful study to all who wish to engage in agriculture in Alaska, and the study of all thoughtful people who wish to keep posted on such matters.

The season of 1904 has been a very unusual one throughout the Territory. It has been one of excessive rainfall and low temperature. We are told that at Juneau on the 4th of July it was only 2° above freezing, and that in the basin back of the town were about 2 feet of snow. In the interior valleys the miners and prospectors have complained of the rain and cold. At none of the stations has there been an entire failure of the growth of plants. At Sitka the nursery plants have made growth, but not very vigorous. Vegetables are small and stunted, with the exception of peas and cauliflower, which seem to have done well. At Kenai the grains that were sown had rank growth, but did not mature.

The station at Copper Center is in its second year of trial. The agent in charge there, Mr. J. W. Neal, has found out many things that will be of immense value to the future homesteaders who are sure to go into that country. In the first place, the ground seems to be possessed of some deleterious principle which is injurious to plants the first year and they will barely germinate and grow. Parcels of new ground that were sown with grain, one part without fertilizer and another part with a certain per cent of fertilizer, showed marked contrast where the fertilizer was used. The plants were twice as tall and far more vigorous and the yield will certainly be three times greater. He has noticed that where the brush heap and logs were burnt, there the plants seemed to do much better, and all the ground that has been tilled the second year shows much better results than the new ground. The plants of grain—oats, barley, wheat, and rye—are very good, and he was hopeful of their coming to full maturity, but early in August there came clear nights and heavy frosts which damaged the grain some. It probably would have tided over this first attack, but later there came other frosts which killed the grain. It was then in the milk. It was not an entire loss, however, for he cut and cured it, and it will make good hay. He had one quality of oats, however, which grew very rank and came to full maturity.

The following meteorological record and soil temperature for the month of August will be interesting to all concerned:

Voluntary observer's meteorological record for month of August, 1904, at Copper Center Agricultural Station, Alaska.

Date.	Temperature.			Precipitation.			Pre- vailing wind direc- tion.	Character of day.	Miscellaneous phenomena. ^b
	Maxi- mum.	Mini- mum.	Mean.	Time of begin- ning.	Time of ending.	Amount ^a			
1.....	62	45	53½	.....	.....	.....	SE.	Partly cloudy ..	Strong wind.
2.....	66	45	55½	.....	.....	.....	SE.	Cloudy .....	.....
3.....	62	44	53	d. n ..	a. m ..	0.13	SE.	Partly cloudy ..	Do.
4.....	67	32	49½	.....	.....	.....	SE.	Clear	Frost.
5.....	68	29	48½	.....	.....	.....	SE.	Partly cloudy ..	Do.
6.....	78	41	59½	.....	.....	.....	NE.	Clear .....	.....
7.....	82	36	59	.....	.....	.....	N.	.....do .....	.....
8.....	87	36	61½	.....	.....	.....	E.	.....do .....	.....
9.....	81	33	57	4 p. m.	5 p. m.	T.	NE.	.....do .....	.....
10.....	75	40	57½	.....	.....	.....	SE.	Partly cloudy ..	Clear, a. m.;
11.....	64	53	58½	a. m ..	a. m ..	T.	SE.	Cloudy	cloudy, p. m.
12.....	67	46	56½	d. n ..	.....	.....	SE.	.....do	Strong wind.
13.....	66	46	56	.....	.....	.....	SE.	Partly cloudy ..	Strong wind.
14.....	65	33	49	.....	.....	.....	SE.	Cloudy .....	.....
15.....	61	32	46½	.....	.....	.....	T.	.....do .....	.....
16.....	69	31	50	.....	.....	.....	SE.	Clear .....	.....
17.....	67	25	46½	6 p. m.	7 p. m.	.17	NW.	Cloudy .....	.....
18.....	70	29	49½	.....	.....	.02	SE.	Clear .....	.....
19.....	60	47	53½	p. m ..	p. m ..	.15	SE.	Cloudy	Very strong wind.
20.....	56	44	50	d. n ..	.....	.23	SE.	.....do .....	.....
21.....	65	42	53½	.....	.....	.08	SE.	.....do .....	.....
22.....	63	46	54½	d. n ..	.....	T.	SE.	.....do .....	.....
23.....	64	57	60½	p. m ..	p. m ..	.01	SE.	.....do	Do,
24.....	57	42	49½	d. n ..	.....	.50	SE.	.....do .....	.....
25.....	57	34	45½	.....	.....	.03	SE.	.....do .....	.....
26.....	59	24	41½	.....	.....	T.	SE.	Partly cloudy ..	Frost.
27.....	51	38	44½	.....	.....	.....	SE.	Cloudy .....	.....
28.....	50	41	45½	a. m ..	a. m ..	.03	SE.	.....do .....	.....
29.....	62	43	52½	a. m ..	a. m ..	.03	SE.	.....do .....	.....
30.....	54	44	49	.....	.....	.33	SE.	.....do .....	.....
31.....	56	48	52	.....	.....	.....	S.	.....do	Strong wind.
Sum...	20.11	12.27	16.19	.....	.....	2.09	.....	.....	.....
Mean...	64.87	+39.58	+52.22	.....	.....	.....	.....	.....	.....

^a Including rain, hail, sleet, and melted snow.

^b Thunderstorms, halos, auroras, etc.

MONTHLY SUMMARY.

Temperature.—Mean maximum, 64.87; mean minimum, 39.58; mean, 52.22; maximum, 87 on the 8th; minimum, 24 on the 26th.

Precipitation.—Total, 2.09 inches; greatest in twenty-four hours, 0.50 on the 24th. Number of days with 0.01 inch or more precipitation, 13; clear, 6; partly cloudy, 6; cloudy, 18. Dates of thunderstorms, heavy thundering in north on 9th.

J. W. NEAL,

Voluntary Observer, Copper Center, Alaska.

August soil temperatures at Copper River Experiment Station.

Date.	Ra.	24-inch.	6-inch.	Date.	Ra.	24-inch.	6-inch.
1.....	35	44½	50	17.....	12	44	48½
2.....	36	44	50½	18.....	17	44	47½
3.....	34	44	49	19.....	34	44	48
4.....	18	44	47½	20.....	33	44	48
5.....	17	44	47½	21.....	30	44	48½
6.....	28	43½	50	22.....	35	44	50
7.....	25	43½	51	23.....	35	44	50
8.....	22	44	54	24.....	32	44	50
9.....	19	44½	55	25.....	25	44	48
10.....	25	45	55½	26.....	12	43½	44
11.....	41	45½	55½	27.....	27	43½	45
12.....	36	45½	51½	28.....	27	43½	44
13.....	34	45½	50½	29.....	31	43½	44½
14.....	19	45½	48	30.....	32	42	46
15.....	17	45	48	31.....	31	42	46½
16.....	16	44½	48½				

J. W. NEAL.

The importance of this station can hardly be overestimated, for future settlers can be benefited by the experiments which have been worked out. The land is of a loamy nature and is easily cultivated, and although the first plowing and breaking sod is pretty tough, yet the soil is mellow and easily cultivated with our modern implements. The Copper River Valley rises in series of plateaus or table lands. Mr. Neal was of the opinion that the early frosts affected the plants in the lower portions more than in the upper ones, and he is now reclaiming the land to cultivate in the coming season upon the upper plateau. The soil at that place does not appear to hold moisture well, and it seems necessary to roll the ground hard for planting. In August he sowed whole wheat and obtained a good stand; it was showing very fine growth at the middle of September.

The report from the station at Rampart, on the Yukon River, is much more gratifying. Mr. Rader, the agent in charge at that place, has reported that oats, rye, and wheat had matured and were harvested about August 15, and that in ten days more the barley would be harvested. This is very striking, for the Rampart station is more than 200 miles north of the one at Copper Center. But these are the things we want to find out and what we have the stations for—to teach us how the plants are affected by the weather. We can confidently commend this work, therefore, and recommend that Congress be liberal in its appropriations for the maintenance of the same.

The following is an extract from the Yukon Valley News, published at Rampart, Alaska, August 3, 1904:

S. E. Heeter has bought the entire crop of Dad Krashner's ranch at Baker Creek Hot Springs. The crop consists of 6,000 head of cabbage, about 200 sacks of potatoes, 2 or 3 tons of beets, and perhaps the same of turnips and cauliflower. Mr. Heeter will ship part of the produce to Rampart and part to Tanana. The pack train will supply the Glen Gulch people. The News will have something to say in the future about this ranch, and the people resident hereabout will doubtless be surprised when they learn the truth of its productiveness, while those in the States will be incredulous.

Mr. C. V. Piper, of the Grass and Forage Plant Investigation Division, passed through the Territory this season. The matter of grasses is going to be a very important one for the miner and prospector. The horses that are used as pack animals from Valdez to the interior stations are expected to pick up their own living along the trail. The pack drivers have knowledge of all the places where grass grows best. It is noticed where the forests have been burned off in many places, the native redtop grass has taken hold. This is an excellent and nutritious grass, and the animals appear to be able to live upon it and do hard work. It is noticed also that where timothy and clover and alfalfa seeds have been dropped they have taken hold and grow luxuriously. It would probably be well if this division which devotes its attention to grasses would go through the country and scatter timothy and other seeds which in their opinion would be adapted to the soil and climate. This would furnish centers from which the seeds might spread and give great benefit to the future settler. The native redtop, however, is an excellent grass. One prospector, 50 miles from Valdez and about 1 mile from the trail, cut and cured 4 tons of it, and has it baled into excellent hay. He expects to realize a good sum for this, as the local price is anywhere from 10 to 20 cents per pound.

The Weather Bureau of this Department is represented in a meas-

ure at these agricultural stations, and the Signal Corps Service keeps weather reports to a certain extent.

Bureau of Forestry.—This Bureau has not yet taken hold vigorously of matters concerning it in Alaska, but they have not forgotten that a large portion of the southeastern section has been set aside for a forest reservation. The chief of this Division, Mr. Gifford Pinchot, is well known as one of our foremost men on this subject, and he is anxious that the people of Alaska shall have no erroneous notions concerning his Bureau, and to this end he wrote to the governor from Spokane, Wash., on August 16, the following. This clear and explicit communication will go far toward instructing and enlightening the people of Alaska as to the Government's purposes in making these large reservations in southeastern Alaska. In other words, it is not to be a "dog in the manger" policy, and is rightly intended to conserve the best interests of the people.

SPOKANE, WASH., August 16, 1904.

DEAR SIR: The question of timber supply in connection with the growing development of Alaskan resources has recently become of so much importance, and your own appreciation of the necessity for a systematic management of the timber lands of that Territory is so well known, that I am glad of the opportunity to state very briefly what I understand the Government's policy will be in this regard. I had intended writing you soon after I had the pleasure of a call from you, but was prevented.

Recent field examinations made by this Bureau tend to show that the amount of merchantable timber in Alaska has heretofore been overestimated. There is consequently even greater need than was supposed for husbanding the timber resources and for providing for a continuous supply in the future. As you are well aware, forest destruction, especially by fire, has been exceedingly rapid in certain sections. I am glad to send you, under separate cover, a map which shows the location and extent of forest and brush cover so far as we have mapped it. This, of course, does not cover the whole Territory, but will serve to show the comparatively small geographical limits within which the merchantable timber occurs. The narrowness of the timber belt along the coast is particularly noticeable.

There is a growing demand for forest products, and it would seem that the most satisfactory way to meet that demand is to include some of the more desirable timber lands in forest reserves. I can not assert too strongly that forest reserves are for use, and that it is the Government's policy to use all their resources to the fullest extent and under such restrictions only as will insure their permanency. There is no disposition whatever to be arbitrary. Forest reserves are not parks or game preserves, and the chief aim in their management is to provide for a practical, systematic, and conservative use of their various products. In the administration of forest reserves the Government's policy is guided by the following general principles:

All the land should be devoted to its most productive use.

All the resources of forest reserves should be used, and so used as to make them permanent.

The dominant industry should be considered first and with as little restriction of minor industries as may be possible.

Local questions should be decided on local grounds.

Sudden changes in industrial conditions should be avoided by gradual adjustment after due notice.

Agricultural lands which may be included within the boundaries of forest reserves should be thrown open to settlement and cultivation.

Prospecting and the legitimate development of mineral resources should be encouraged.

Timber, wood, and other forest products should be sold upon application at the market value and under such restrictions only as will insure a permanent forest growth.

The establishment of forest reserves in Alaska will effectually prevent any individual or corporation from monopolizing the timber supply, and will remove the danger of extensive exportation to the detriment of local industries. If the local timber supply becomes exhausted, mining, canning, and all other commercial enterprises will be seriously handicapped. Under forest-reserve administration timber will not only be sold to meet local demands, but it will also be protected from destruc-

tion by fire where fire is dangerous. In short, the permanent success of the industries of Alaska can best be secured through the establishment of forest reserves. And, I may add, the prosperity of the Indians will follow regular employment in logging. What the Government intends to do in this respect is shown by what it has already done. When timber is ripe for cutting there is as much reason why it should be cut from a forest reserve as from any other piece of land.

Field examinations of the forests of the Territory will be continued by this Bureau, and maps of all the more important forest areas will eventually be prepared.

Please excuse this long letter. I send it because I am anxious that the object of the Government in creating forest reserves should not be misunderstood.

Very sincerely, yours,

GIFFORD PINCHOT, *Forester.*

HON. JOHN G. BRADY,
Governor, Sitka, Alaska.

Game laws.—This came under the Biological Survey Division of this Department; Mr. C. Hart Merriam is the chief of the Division, and the gentleman who has had most to do in the origin and execution of this law. There has been some agitation of this matter by Congressmen and others, and the Department has been somewhat stirred up on the subject, so much so that a new set of regulations were issued on June 4, 1904, and signed by Secretary James Wilson. All this will be found in Appendix B.

The publications of this Department are as important as any which the Government prints. They come regularly to the Alaskan library and are valued highly.

DEPARTMENT OF COMMERCE AND LABOR.

The division, Light-House Board, of this Department, has already accomplished a very considerable work in Alaska. The thirteenth light-house district comprises Oregon, Washington, and all of Alaska. The ground to be covered is entirely too large, and the right way to do, as has been recommended by the Light-House Board, is to create a new district for Alaska alone, and furnish it with a tender and all the necessary implements for that kind of work, with headquarters in the district of Alaska to be left to the selection of the Light-House Board itself. The light-houses which have already been built and the buoys and beacons which have been placed for the aid of navigation are highly appreciated by all navigators, but an immense amount of work still remains to be done. The navigation on Prince William Sound and adjacent coasts is increasing at such a rate that sea captains and pilots feel the need of aids in that quarter. There is enough work to keep a tender going very much all her time, for the work now has spread out from Mary Island, near 54° 40', in southeastern Alaska, to the light-house on Scotch Cap, at Unimak Pass, at the entrance to Bering Sea. The work upon Guard and Fairway islands and at Point Retreat has all been done within the year.

The division of Coast and Geodetic Survey has been represented during the season. The superintendent himself, Mr. Otto H. Tittmann, has been upon the field looking after the boundary line with the Canadian surveyors. The Survey vessels *McArthur* and *Patterson* have been at work at Kiska Island and other places, to the almost extreme westward of the Aleutian chain.

Steamboat Inspection Service.—Much complaint is made because the local inspectors do not reside continuously in the district. Vessel owners and others are often put to great expense on account of the long delays incurred before they can communicate and do business

with these officers. When the custom-house officials find any violations of the law, by reason of the boat's officers not having their proper papers from the inspectors, they have no discretion, but must enforce the law for technical violations. The customs officials have no power to grant relief. For instance, if a company or party who come from Puget Sound to a port in Alaska with a steam craft, the engineers may, for various reasons, conclude to leave the vessel, and it happens at times that other engineers are able and competent to step into their places, but they can not because they have no license nor the opportunity to appear and be examined and obtain one; thus an expedition may be broken up and the projectors put to immense loss.

Even when the inspectors are in the Territory all their time, occasions of hardships may occur when the inspectors are at Nome or away up on the Yukon River if the aggrieved person is at another portion of the district. It would be well, therefore, so far as Alaska is concerned, if the collector of customs and his deputies for Alaska were for the present allowed a certain amount of discretion in easing over these hardships to owners and inspectors of vessels. It would appear that the Supervising Inspector-General himself, together with his deputies, should be able to suggest the proper legal remedies for these things in Alaska.

The Bureau of Immigration.—This Bureau is represented in the district by Kazis Kranczunas as inspector, with headquarters at Ketchikan. He has been on the revenue cutter *Perry* on her rounds, and has found all kinds of people from every quarter of the earth around the canneries.

The Bureau of Fisheries.—This Bureau has not been represented this year in Alaska, but a great majority of us believe that the entire fishing interests of the country should be under the care of this Bureau, and should make only one division of it; but more on this subject elsewhere.

The Bureau of Statistics.—This Bureau, under the lead of its Chief, Mr. Oscar P. Austin, is doing a good service, and what has been gathered from his work bearing on the district, will be found in Appendix I.

DEPARTMENT OF WAR.

This Department of the Government (Alaska) comes under the division known as the Department of the Columbia, with headquarters at Vancouver Barracks, Wash. The following communication from Brig. Gen. Frederick Funston, commanding, will show what the Army has in this Territory.

HEADQUARTERS DEPARTMENT OF THE COLUMBIA,
Vancouver Barracks, Wash., September 12, 1904.

SIR: In reply to your telegram of the 10th instant, I have the honor to forward the following information concerning the Alaskan military posts:

FORT EGBERT.

Maj. E. H. Plummer, Third Infantry, commanding. Garrison, Companies G and H, Third Infantry; 10 officers and 141 enlisted men.

FORT GIBBON.

Maj. Arthur Williams, Third Infantry, commanding. Garrison, Companies I and K, Third Infantry; 8 officers and 141 enlisted men.

FORT DAVIS.

Capt. Paul Giddings, Third Infantry, commanding. Garrison, Company D, Third Infantry; 4 officers and 75 enlisted men.

FORT ST. MICHAEL.

Maj. William L. Buck, Third Infantry, commanding. Garrison, Companies L and M, Third Infantry; 9 officers and 139 enlisted men.

FORT LISCUM.

Lieut. Col. James E. Macklin, Third Infantry, commanding. Garrison, Companies E and F, Third Infantry; 9 officers and 138 enlisted men.

CAMP SKAGWAY.

Col. Thomas C. Woodbury, Third Infantry, commanding. Garrison, Companies A, B, and C, Third Infantry; 14 officers and 205 enlisted men.

ALASKAN MILITARY TELEGRAPH.

The Alaskan telegraph was opened for business over the entire system on August 23, 1903, since which time it has been operated with reasonable success until the present time.

The line was interrupted 206 times during the year, due to snowstorms, blizzards, sleet and ice, high winds, forest fires, etc. The longest interruption occurred during the month of August, 1903, between Tolavna and Chena, covering a period of 18 days, due to forest fires.

The lines from Fort Egbert to Valdez and from Fort Gibbon to Fort St. Michael are in good condition, while the Tanana section is only in fair condition.

A telegraph office was opened at Fairbanks November 11, 1903, for the service of the town.

A set of repeaters installed at the Fort Gibbon office has enabled Fort St. Michael and all offices on the Yukon division to work successfully direct with Eagle and other offices on the Tanana division, thus obviating the necessity of relaying.

The cable offices at Juneau and Skagway were in operation before July 1, 1903. The cable to Haines Mission was completed and the office opened July 21, 1903. The cable to Sitka was completed October 2, 1903, and the office opened the same date.

The impossibility of maintaining a cable across Norton Sound, between Fort St. Michael and Safety Harbor, due to the destructive action of the ice in the spring, led to an attempt to effect communication by wireless telegraph.

This system worked satisfactorily about August 1, 1904.

Very respectfully,

FREDERICK FUNSTON,
Brigadier-General, Commanding.

The GOVERNOR OF ALASKA, *Sitka, Alaska.*

Since that letter was written cable communication has been established between Sitka and Seattle, and at this writing the cable ship *Burnside* is loaded with wire, and supposed to be coming from Valdez to Sitka to complete that part of the work, for which an appropriation was made at the last session of Congress in the army bill.

We all feel pleased over the work of the Signal Corps in extending telegraphic communications through the heart of the country, and now especially cable communication with Puget Sound. When the part between Sitka and Valdez shall have been completed, we shall have an all-American route for communication, and feel in a great measure independent. The immense value of this to the General Government in governing the Territory can hardly be overestimated, and we feel quite sure that Congress is abundantly justified in going to the expense for its construction. We now know its immense service to us by

actual use. It is a matter of regret that we have been deprived of it for so many years. We hope that the Department, through its vigorous head of the Signal Corps, Gen. A. W. Greeley, will keep at it until additional communication from Ketchikan and Wrangell to Juneau is secured. This small piece of line will then enable the Department to be in touch with all the portion of southeastern Alaska, and will be of immense service to transportation lines and merchants, officers of the Government, and especially the courts and the general community.

The military service at the Alaskan forts is unlike what the officers have been used to upon the plains of the frontier, where heretofore they had a good deal of Indian fighting on hand, and found a constant watchfulness over them necessary when they were not fighting. In these forts we have a number of very capable young officers who have been trained at a military academy.

In former reports it has been suggested that arrangements might be made between the Interior Department and the War Department to have the public lands in the immediate neighborhood of each fort surveyed. This would give the officers and men a constant field of duty, and be somewhat in line with the training of the officers and would be, by all means, a benefit to the country, for we have as yet not one acre of land surveyed, not even a meridian or base line established as a beginning to the survey.

THE DEPARTMENT OF THE NAVY.

This Department is represented in Sitka by the United States Marine Corps. The barracks are located at Sitka, and at present commanded by Capt. Charles Gamborg Andresen, in command of 48 men. In connection with these barracks the Bureau of Medicine and Surgery is represented by Dr. J. T. Miller.

Japonsky Island, in Sitka Harbor, is a military reservation and there is constructed thereon two large coal sheds with a capacity of 2,500 tons each, with all modern appliances, a good wharf and derrick, and tracks for the purpose of handling the coal and loading the war vessels. At the present time the sheds are filled with coal shipped from Cardiff, Wales. And in connection with these works there is a small house at which a half dozen marines are kept on detail duty.

It appears that this Department has selected Kiska Island, one of the far western portion of the Aleutian chain, and has determined at that place to erect coal sheds of great capacity, giving it the necessary protection, and make it one of our great strategic points in the possible complications that may arise between ourselves and the Orient. No doubt the general sense of the country will approve such action.

Speaking of the necessities for protection under the head of the Department of Justice, reference was made to the condition which we find in Bristol Bay. There is one thing sure, that if we are determined to own Alaska, we should protect it. In last year's report it was urged that the Navy Department should keep at least three suitable gunboats cruising in Alaskan waters. The experience of the past season emphasizes this more than ever before. It is our duty to the men who have undertaken the canning business and put their money into it, and who are giving to the world a valuable food product at a very cheap price, to give them protection, and protection that is immediate and efficient. These canneries, moreover, pay a very large tax into

the courts, which is laid on at 4 cents per case on the pack of each year. It is not fair to desert them and leave them to protect themselves as best they may. From the very nature of their business at present they are bound to bring into the country all kinds of help they are using. If a gunboat were cruising along the shores of Bristol Bay, and as far as Chignik and Karluk, those who were inclined to hatch up mischief and work iniquity would probably think twice before they attempted anything of the kind. The effect of the presence of a gunboat can hardly be overestimated. This is equally so in the effect of a gunboat upon the natives. We can see no reason why these vessels can not be kept here, as the Navy is increasing and it is the very kind of service that will keep the officers and sailors in healthy action. The climate is healthy, certainly more so than it is in many places where our Navy is stationed in other portions of the globe. If it becomes necessary, Congress should require this service of the Navy by law.

POST-OFFICE DEPARTMENT.

This Department serves almost every man, woman, and child in the district, and stands very near to us. While there may be growling and complaint at times in certain places, yet in our sane and quiet moods we know that everything within reason is being done for our accommodation. It is the one Department that stood by Alaska from the beginning without flinching, and now its business has grown to very large proportions, and perhaps some of the hardest service which is required on any part of the globe in carrying and delivering mail is performed in Alaska by the hardy men who face all kinds of obstacles and danger and overcome them. The agents of the Department located in the district look well after the work and keep the mails moving in as satisfactory manner as it is possible to do. New requirements are constantly arising as new finds are being made in places and stampedes occur, but the Post-Office Department keeps posted on these matters and keeps up with these new communities in delivering mails. It may be said that, next to food, nothing is so satisfying and acceptable to the miners and those who follow them as the certain and prompt delivery of mails. The officers of the Second Assistant Postmaster-General and the Fourth Assistant Postmaster-General are the ones who have most to do with Alaska. In the official directory will be found the list of post-offices and postmasters, together with their compensation and date of appointment, and a list of the mail routes and the contractors, and also a "General scheme of the Alaska mail service," in Appendix J, all of which will be of great interest to merchants on Puget Sound and elsewhere and to the general business public of Alaska.

TREASURY DEPARTMENT.

The first civil office created by Congress for Alaska was on July 27, 1868, when the whole district was organized into a district for the collection of customs and the office of collector was established. This office has been continued until the present, although at one time, in 1877, the then Secretary of the Treasury recommended to Congress to do away with the office. The office is now well organized and is meeting every requirement for the service in a businesslike and orderly manner.

As noticed elsewhere, the collector and his deputies are bound to perform certain duties, and often find persons temporarily engaged in service of steam vessels without the necessary licenses. No discretion is left with them for action in these cases, and it would seem that the great distance and want of communication would warrant something to be done in allowing these officers to act on their best judgment.

The collector has kindly furnished this office with a report of transactions in the customs service at the different ports in the district. This will make interesting matter for reference, and is therefore given in Appendix K.

The Comptroller of the Currency comes in touch with the district by reason of there being one national bank established, namely, the First National Bank of Juneau, Alaska, No. 5117.

Internal Revenue.—Alaska is a part of the district of Washington for internal-revenue purposes, and John Cameron, residing at Juneau, is the deputy collector for the district. The collector, Mr. D. D. Crocker, under date of September 12, reports that \$16,656.86 is the amount collected for the fiscal year ending June 30, 1904.

An attempt has been made in former reports to show why the courts should be relieved of the license system and the responsibility and work be placed with this branch of the Treasury Department. It is surely no part of the court to be burdened with this business, and there has been a tendency in legislation for Alaska to overload the courts with an amount of executive business which does not belong to the function of a court. Certainly everything can be better attended to by the officers of the Internal-Revenue Bureau than by any other set of officers. It is strictly in line with their duty, and no person who should pay a license for trade or other business is liable to escape their vigilance. We do not forget that in the days when Alaska was under strict prohibition these same officers, notwithstanding, collected special taxes from as many as 303 persons who were engaged in the unlawful sale of liquor in the district.

Bureau of Public Health and Marine-Hospital Service.—This Bureau is represented at Nome and at Juneau, and stands ready to aid all those who are entitled to its services. As commerce and navigation increase year by year there will be more and more required to do, and in time ampler provisions will have to be made to meet the demands.

Revenue-Cutter Service.—This Bureau has done earnest and hard work for Alaska for years. The only semblance of authority that was exerted in Bering Sea to overawe the smugglers and daring whalers in the illegal traffic was assumed and fairly exercised by Capt. M. A. Healy, who has, after a short period of retirement, passed away this summer to his eternal rest. The Bering Sea patrol service is an exacting one, but it has always been well performed, and the cutters are frequently called upon to afford transportation, especially to officials who are sent into the Territory for extraordinary service. The Service was unfortunate this year in that several vessels met with accidents at about the time they were ready to sail for their northern cruises.

The revenue cutter *Rush* spent the whole of last winter in cruising from point to point in southeastern Alaska. This is perhaps the first winter that a vessel of this class has put in the entire year in cruising among the islands and doing actual service. It should be stated that this vessel did some hard work during the month of November last with the officers and crew in securing a large number of totem poles and two

natives buildings from Prince of Wales Island for the Alaskan building at the St. Louis World's Fair. Most of these were very heavy objects and required much labor and patience to lower them and handle them on the confined deck space and take them to places of transportation, where they could be picked up by south-bound steamships for Seattle. This service was rendered cheerfully and without any extra expense to the Government, and it is hereby gratefully acknowledged.

This same vessel this season, under the command of Capt. W. F. Kilgore, rendered timely and efficient service in saving the American ship *McLaurin* from becoming a total wreck and rescuing 137 of her crew and passengers. On August 25, in a heavy gale, this ship lost her rudder, and although a jury rudder was rigged she was helpless in the storm, and drifted 70 miles before a northwest gale. The service was timely and well rendered, and is a plain illustration of how valuable the Revenue-Cutter Service is to commerce.

This service on the Pacific slope is hard pressed, and Congress should anticipate its needs and be liberal in providing for new vessels which are more up to date.

THE DEPARTMENT OF THE INTERIOR.

The governor and secretary of the district come under this Department.

On March 3, 1903, Congress passed a law appropriating \$50,000 to enable Alaska to have an exhibit at the Louisiana Purchase Exhibition to be held at St. Louis, opening April 30, 1904. The law placed the burden upon the Secretary of the Interior, and in time the work was arranged. The First Assistant Secretary of the Interior, Thomas Ryan, was appointed chairman of the Alaska Exhibit Commission, and the governor of the district was appointed executive commissioner. More concerning the Alaska exhibit will be given hereafter.

This Department, through its division of the General Land Office, comes into close relationship with the district. The surveyor-general, who is also ex officio secretary of the district, is located at Sitka. He kindly furnished this office with a summary of transactions in regard to surveys and contracts, also gives a list of the United States deputy mineral surveyors and United States surveyors who have qualified and been appointed. All this is given in Appendix L, and the great number of persons who are interested in lands and surveys of Alaska will find these matters interesting and profitable reading.

The land office is located at Juneau, with John W. Dudley as register and T. M. Mullen, receiver. The transaction of business done by them during the year has not been obtained by this office.

Bureau of Indian Affairs.—This office is not in touch with Alaska save only that the Indian police are 20 in number, and are under its control through the governor, who must give a bond and act as special disbursing agent. The governor appoints them and dismisses them as he deems proper. They receive a salary of \$10 per month, save the chief of police, who receives \$15 per month. The names and locations are given in the Official Directory.

Bureau of Education.—This office has for many years been represented in Alaska through its general agent, Dr. Sheldon Jackson. He has had full control of school matters from the time of his appointment in 1885 until the incorporation of towns under the revised code

approved in 1900. The Bureau still has the control of all school matters in the district outside of incorporated limits. It has also had the care of transportation and the propagation of domestic reindeer.

The report shows outside of incorporated towns there are 35 public schools, 38 teachers, and 2,257 pupils. Nineteen of the schools are new schools established in 1904. The expenses are \$56,211. The number of reindeer are 8,194; 2,435 are fawns of this year.

This Department is also represented in Alaska by the Bureau of Geological Survey. Perhaps no set of investigators have been more alive to Alaska's great mineral wealth than the men, mostly young, who have been in the field conducting the work. The Director of the Bureau, Charles D. Walcott, has been broadminded and liberal, and the men serving under him have caught up his spirit and push ahead.

The Alaska work has been under the supervision and general direction of Alfred H. Brooks. The address which this gentleman delivered at the Lake Superior meeting of the American Institute of Mining Engineers, in September of 1904, is complete and pertinent, and is given herewith as a competent and proper matter in Appendix M in this report.

DISTRICT HISTORICAL LIBRARY AND MUSEUM.

Much interest is manifested in the library and a number of accessions have been made thereto. It is hoped that the entire collection may be fully catalogued at an early day.

During the year 679 books were donated, 564 from various executive branches of the Government, and 115 from the several States.

The following books were purchased for the library:

Dall's Yukon Territory.	Beecher's Narrative.
Elliott's Arctic Province.	Our New West.
Westdahl's Mountains.	Sheffern's Lapland.
Back's Narrative.	Senate Life.
Barrow's Voyages.	Canada, its Defenses and Conditions.
Chappel's Voyage.	Greely's Arctic Sunrise.
Danenhov's Narrative.	Ball's Bluff.
Franklin's Journeys. 2 vols.	Prescott's Conquest of Mexico. 3 vols.
Gilder's Ice Pack.	Allen's Red Mountain.
Leslie's Narrative.	Brook's Mount McKinley.
Peary's Great Ice.	Russian Encyclopædia.

An Act and the Rules and Regulations of the "Russian American Co.," granted by His Imperial Majesty. St. Petersburg. 1808.

Alexeeff. Through America. Moscow. 1888.

Annenkoff. Asiatic Russian Colonization. St. Petersburg. 1889.

Anert. Mantchoorian Expedition. St. Petersburg. 1897.

Anson. Journey around the World, 1740-44. St. Petersburg. 1751.

Anochin. About the Exiles to Siberia. St. Petersburg. 1866.

Arago. Voyage autour du monde. 2 vols. Paris.

Arsenieff. Voyage of Ambassador N. Spafaria in 1675. St. Petersburg.

Arctic Discoveries. St. Petersburg. 1856.

Adventures, famous, of the XVIII Century. St. Petersburg. 1900.

Andreeff. Sectarianism and its Signification in History. 1870.

Barsookoff. Innocent, Metropolitan of Moscow. 1883.

Bekkarevich. Statistical Review of Siberia. St. Petersburg. 1810.

Berg. Investigation of the Winter Thunderstorm. 1890.

—— The first Sea Voyage of the Russians, 1822. Manuscript.

—— Description of the Shipwreck of the Ill-fated *Neva*. Manuscript. 1822.

—— Chronological History of all the Voyages to the Northern Regions. 2 vols. 1823.

Bellinsgauzen. Twofold researches in the Arctic Ocean, 1831. 2 vols.

- Billings. Voyage and Navigation in 1791. St. Petersburg. 1811.
- Bougard. *Végétation de l'île de Sitka* (Sitka). 1831.
- Bilbasoff. History of Catherine II. Berlin. 1900. 2 vols.
- Bogdanovich. Description of Rome. St. Petersburg. 1901.
- Description of Chukotx Peninsula. St. Petersburg. 1901.
- Tidings of Okhotsk-Kamchatka Expedition. 1896.
- Bogoraz. Materials for the Study of Chukotx Language. 1900.
- Bogoslovsky Vestnik. Theological Messenger. 12 vols.
- Bookvar. Aleutian Alphabet. St. Petersburg. 1853.
- Booharoff. A Trip to Lapland. St. Petersburg. 1885.
- Brailovsky. On the Coast of Vladivostok. 1902.
- Belyaef. Russian Missions on the Frontier. St. Petersburg. 1900.
- Valaam's Magazine. St. Petersburg. 1894.
- Valaam's Ascetics. St. Petersburg. 1872.
- Vengeroff. Dictionary of the Russian Authors. St. Petersburg. 1884.
- Veniaminoff. Remarks about the Thlingit and Kodiak Languages. 1843.
- Grammar of the Aleutian-Lisef. Language. St. Petersburg. 1846.
- Veselovsky. Ethnographical Magazine. St. Petersburg. 1880.
- Virt. History of the Commercial Crisis. St. Petersburg. 1876.
- Vitkovsky. Over the Ocean. St. Petersburg. 1894.
- Veslago. History of the Naval Cadet Corps. St. Petersburg. 1852.
- Vladimiroff. Russian among Americans. St. Petersburg. 1877.
- Visheslavchoff. Circumnavigation of the Globe. 1857-60.
- Voeikoff. Snowy Cover. St. Petersburg. 1889.
- Observations on the Snowy Cover. St. Petersburg. 1890.
- The Modern Exploration of the Ice Fields. St. Petersburg. 1882.
- Voloshinoff. Siberian Railroad. St. Petersburg. 1890.
- Vrochevich. The Inhabitation of the Yakut District. 1891.
- Herman. An American Missionary. St. Petersburg. 1894.
- Gelvald. In the District of Perpetual Ice. St. Petersburg. 1881.
- Geographical Magazine. St. Petersburg. 1861.
- Geographical Information. St. Petersburg. 7 vols.
- Golovnin. Compositions and Translations. St. Petersburg. 1864. 5 vols.
- Voyage Around the World. St. Petersburg. 1822. 2 vols.
- Voyage to Kamchatka and Kuril Islands. St. Petersburg. 1819.
- Notes. St. Petersburg. 1894.
- Grinevitchky. Across the New Land. St. Petersburg. 1883.
- Goolishambaroff. The American Naphtha Industry. 1894.
- Gransem. Along the Polar Regions of Russia. St. Petersburg.
- Grebenschikoff. The Traveling Notes. St. Petersburg. 1887.
- Dal. Description of the Obi Expedition. Moscow. 1877.
- Dickson. The New America. St. Petersburg. 1869.
- Dmitrefsky. The Notes of an Interpreter. St. Petersburg. 1884.
- Report of the Committee concerning the Organization of the Russian American Colony. 1863.
- Dolgorookoff. A Guide through Siberia. Tomsk. 1897.
- Donskay. A concise Scripture Story in Thlinkit Language. 1901.
- Donskoy. Prayers in Thlingit Language. Sitka. 1895.
- D'Urville. Voyage pittoresque autour du monde. Paris. 1839. 2 vols.
- D'Orbigny. Voyage dans les deux Ameriques. Paris. 1836.
- Bible in Aleut Language. St. Petersburg. 1898.
- Eliseff. Report of the Trip to the Far East. St. Petersburg. 1890.
- Catherine. Chosen Compositions. St. Petersburg. 1890. 3 vols.
- Jaune. The United States.
- Jdanko. Geographical Labors in the Arctic Ocean. St. Petersburg. 1894.
- Jouvo. The Present America. St. Petersburg. 1872.
- Zagoskin. Pedestrian Description of the Russian Possessions in America. 1847.
- Notes of the Imperial Russian Geographical Society. St. Petersburg. 11 vols.
- Ivashincheff. Review of the Russian Circumnavigation of the Globe. 1850. Manuscript.
- Instructions for Investigation and Description of the Rivers. St. Petersburg. 1896
- Instruction for Investigation of the Sea Coast. St. Petersburg. 1888.
- Instruction for the Definition of Height. St. Petersburg. 1891.
- Iohelson. Materials for the Study of Ukagir's Language. St. Petersburg. 1900.
- Innocent. Advice to a Missionary. New York. 1899.
- An Indicator to the Path to the Kingdom of Heaven. 1864.
- Life and Labors. San Francisco. 1897.

- Information of the Imperial Geographical Society. 9 vols.
 Kalashnikoff. "Kamchadalka." St. Petersburg. 1833. 4 vols.
 Karniloff. Remarks about Siberia. St. Petersburg. 1828.
 Karnovich. A Native Village with Russians. St. Petersburg. 1886.
 ———. Enigmatical Individuals. St. Petersburg. 1893.
 Kastren. Versuch einer ostyakischen Sprachlehre. 1849.
 ———. Woerterverzeichnisse aus der samayedischen Sprache. 1855.
 ———. Grammatik der Samayed-Sprachen. St. Petersburg. 1854.
 ———. Grundzuege einer tungusischen Sprachlehre. St. Petersburg. 1856.
 Kaufman. The Information of the Production of Gold. St. Petersburg. 1894.
 Klaprot. Archiv fuer asiatische Literatur. St. Petersburg. 1810.
 Komaroff. Conditions of Colonization. St. Petersburg.
 Kostrometino. An Indicator of the Path to the Kingdom of Heaven, in Thlinkit. 1901.
 Kotzebue. Memorable Year. St. Petersburg.
 A Brief Description of the Island of Kodiak. Manuscript.
 A Brief Report of the Siberian Expedition. Manuscript.
 Kootoozoff. Undertaking of the Empress Catherine in 1786. Manuscript.
 Krapotkin. Glaciers. St. Petersburg. 1876.
 Krasheninnikoff. Description of Kamchatka. St. Petersburg. 1786. 2 vols.
 Kruzenshtern. Voyage around the World. St. Petersburg. 1809. 3 vols.
 Cook. Voyage around the World. St. Petersburg. 1799. 5 vols.
 Kruzenshtern. Biographical Sketch. St. Petersburg. 1869.
 Lazareff. A Voyage around the World. St. Petersburg. 1832.
 Latkin. "Diary." St. Petersburg. 1853.
 ———. Outline of the Gold Mines. St. Petersburg. 1869.
 Literary Reading of the Boundary Question. Anthony. 1902. Sitka.
 Looghmanoff. Outline of the Siberian Life. St. Petersburg. 1896.
 Maksimoff. On the Far East. St. Petersburg. 1900. 10 vols.
 Markoff. The Wreck of the *Neva*. Odessa. 1835. Manuscript.
 Materials for the History of the Settlements on Eastern Ocean. 1861. 3 vols.
 Martoss. Letters about the Eastern Siberia. Moscow. 1827.
 Materials of the Prison Statistics.
 Medvedeff. Emigrants in Siberia. St. Petersburg. 1891.
 Mikluho-Maklai. Toorooan's Expedition. St. Petersburg. 1897.
 Mejoff. Literature of the Russian Geography. St. Petersburg. 1878. 3 vols.
 ———. A Siberian Library. St. Petersburg. 1891. 3 vols.
 Miller. Description of the Siberian Kingdom. St. Petersburg. 1750.
 Mordvinoff. Notes. St. Petersburg. 1888.
 Mooshketoff. Earthquakes. St. Petersburg. 1890.
 Memirovich-Dauchenko. Compositions. St. Petersburg. 1891. 4 vols.
 Nebolsin. The Conquest of Siberia. St. Petersburg. 1849.
 Nadaroff. The Northern Border of Oussuris. St. Petersburg. 1887.
 ———. The Southern Border of Oussuris. St. Petersburg. 1889.
 Nicholai. Compositions. 3 vols.
 Noel. Universal History of the Furs and Fish Industry. St. Petersburg. 1817.
 About the Fur Trade and the Disputes between English and Americans. Manuscript.
 Ostrovsky. Russian Trade on the Northern Ocean. St. Petersburg. 1891.
 Report of the Russian-American Company for the year 1859.
 Oktoigh. London. 1898.
 Talladi. Historical Description of the Oussuris Country. St. Petersburg.
 Memorials of the Siberian History, XVIII Century. St. Petersburg. 1882. 2 vols.
 Peter. The Sitka Sermons. 1865.
 Plushar. The Mariner's Library. 2 vols. 1854.
 Podgaetchky. Moorman's Coast. St. Petersburg. 1890.
 ———. The Siberian Transit. 1880.
 The Condition of the Church Buildings in Siberia. St. Petersburg. 1900.
 Polenoff. Vitimski's Expedition. St. Petersburg. 189—.
 Polyakoff. Notes of the Geographical Society.
 Potchin. The "Ross" Settlement in California. St. Petersburg. 1859.
 Prjevalsky. The Voyage in 1867. St. Petersburg.
 Plitchin. Selenginskaya Dowry. St. Petersburg. 1896.
 Guide of the Great Siberian Railroad. St. Petersburg. 1900.
 Peelyaef. The old Saint Petersburg. St. Petersburg. 1889.
 The Church Chants in the Native Alaskan Language. 4 vols.
 Radloff. Sprache der Tshuktchen. St. Petersburg. 1861.
 Resin. The Natives of the Russian Coast on the Pacific.

- Rogon. Ueber fossile Fische. St. Petersburg. 1889.
 Koomyantcheff. Letters to V. N. Berg. St. Petersburg. 1876.
 Sareecheff. Voyage 1785-1793. St. Petersburg. 1802.
 Sareecheff. Atlas, an Appendix to the Voyage. St. Petersburg. 1802.
 Sauer. Expedition to the north parts of Russia. 1802.
 Collection of the people's judicial usages.
 Semenoff. Forgotten Course. St. Petersburg. 1894.
 Sergievsky. About the Exile in Ancient Russia. St. Petersburg. 1884.
 Slavinsky. Letters about America. St. Petersburg. 1873.
 Skalsovsky. Suet's Expert. St. Petersburg. 1870.
 Slovcheff. Historical Review of Siberia. 1844.
 Sakaloff. Russian Marine Library. 1701-1851.
 Sreznevsky. Northern Carved Calendar. St. Petersburg. 1874.
 Struve. Universal Time. St. Petersburg. 1885.
 Struditsky. History of the Voyage to Bering Straits. 1883. 2 vols.
 Serosovsky. Yakut. St. Petersburg. 1896.
 Tverskoi. United States. St. Petersburg. 1895.
 ——— "Dooobor." St. Petersburg. 1901.
 Teello. Geographical Results. St. Petersburg. 1888.
 Teehmenieff. History of the Russian-American Company. 1861.
 Tokville. The American Democracy. St. Petersburg. 1897.
 Three Centuries of Siberia. St. Petersburg. 1882.
 Ouhtomsky. Voyage of His Imperial Majesty. 1893. 6 vols.
 Fisher. History of Siberia from the very first. St. Petersburg. 1774.
 Hlebnikoff. Biography of Baranoff. St. Petersburg. 1833.
 Chertkoff. An Elementary Book of the English Language. 1901.
 Shashkoff. Collections of Writings. St. Petersburg. 1898.
 Shemelin. About the First Voyage around the World by Russians. Manuscript.
 Shelling. Theory of the Ocean Currents.
 Shifner. Weerterbuch der Kinai Sprache. St. Petersburg. 1874.
 Schmidt. Hydrologische Untersuchungen. St. Petersburg. 1873.
 Shrenk. Ochotskisches und Japanesischen Meer. 1873.
 Theodoroff. "Solovki Islands." Kronshtadt. 1889.
 Urgens. Lena Expedition. St. Petersburg. 1885.
 Yachevsky. Always Frozen Soil. St. Petersburg. 1889.
 Yanjul. American School. St. Petersburg. 1901.

The following statement of receipts and disbursements for the year ending September 30, 1904, is taken from the report of the secretary of the district, submitted to the Secretary of the Interior, as required by the provisions of chapter 1, section 32, of the Civil Code for Alaska, approved June 6, 1900:

Statement of the receipts and disbursements of the Alaska Historical Library and Museum fund for the year ending September 30, 1904.

1903.			1903.				
Oct.		Dr.	Dec.		Cr.		
	1	By balance last report.....	18	Atlanta Book Co.....	\$1.71		
	3	J. P. Kelley, notary public....	18	The Arthur H. Clark Co.....	6.88		
	3	T. G. Wilson, notary public....					
	26	H. B. Scott, notary public.....					
Nov.	4	G. M. Irwin, member bar.....	1904.				
	9	F. Moran, notary public.....	Jan.	11	The Daily Alaskan, Skagway....	9.00	
	9	A. F. Burleigh, member bar....		20	The Arthur H. Clark Co.....	9.14	
	9	F. W. Cushman, member bar....	Feb.	3	Americus Book Co.....	9.20	
	9	W. B. Heyburn, member bar....		3	Americus Book Co.....	2.36	
	9	P. Gallaher, member bar.....		3	The Arthur H. Clark Co.....	34.57	
	9	J. J. Godfrey, member bar.....	Mar.	2	Alaskan Publishing Co., Sitka....	2.00	
	9	E. Smith, member bar.....		14	Daily Record-Miner, Juneau....	8.00	
	16	S. C. Henton, notary public....			14	Dispatch Publishing Co., Juneau.....	8.00
	17	M. Barker, notary public.....			19	Sentinel, Wrangell.....	2.00
	17	N. H. Bard, notary public.....			19	Mining Journal, Ketchikan....	3.00
Dec.	8	J. H. Murray, member bar....			19	Douglas Island News, Douglas....	3.00
	8	C. H. Clegg, notary public.....			19	Guide, Skagway.....	5.00
	10	B. B. Lockhart, notary public....			28	Rev. Anthony Dashkevich....	948.25
	14	S. Ripinsky, notary public.....	Apr.	2	Lawman & Hanford Stationery and Printing Co.....	23.10	
1904.							
Feb.	12	N. Soderberg, member bar....		5	Lawman & Hanford Stationery and Printing Co.....	9.00	
	12	W. H. Peckwood, member bar....					
	12	G. H. Meyer, member bar.....		8	The Alaska Prospector—Valdez.....	3.00	
	12	A. Chytraus, member bar.....					

Statement of the receipts and disbursements of the Alaska Historical Library and Museum fund for the year ending September 30, 1904—Continued.

1904.		Dr.	1904.		Cr.
Feb.	12 J. M. McDonald, member bar.	\$10.00	June 17 The Forum Publishing Co.—		
	12 J. C. Applewhite, member bar.	10.00	Rampart		\$10.00
	12 G. B. Grigsby, member bar...	10.00	July 1 Nome News Publishing Co.—		
	12 H. A. Ingalls, notary public...	10.00	Nome		10.00
	23 W. A. Kelley, notary public...	10.00	9 Nome Gold Digger—Nome...		5.00
Mar.	19 L. S. Posner, commissioner		22 Leo Nabokoff		74.00
	deeds, New York	5.00	Aug. 4 The Nome Nugget		12.00
	21 G. H. Meyer, notary public...	10.00	Sept. 30 By balance		2,499.56
	31 L. C. Hess, notary public	10.00			
	31 H. P. Gallagher, notary public.	10.00			
Apr.	4 J. W. Albright, notary public...	10.00			
	8 A. J. Adams, notary public...	10.00			
	8 C. K. Pettingill, notary public.	10.00			
	22 D. H. Janes, notary public....	10.00			
May	4 J. Henson, notary public.....	10.00			
	6 W. M. French, notary public...	10.00			
	7 J. H. Brownlow, notary public.	10.00			
	13 P. D. Blodgett, notary public...	10.00			
	13 N. M. Davidson, notary public.	10.00			
	17 J. H. Joslin, notary public	10.00			
	17 L. Tozier, member bar	10.00			
	17 C. M. Frazier, member bar...	10.00			
	17 U. G. Meyers, member bar ...	10.00			
	20 M. P. Bransfield, notary pub-				
	lic	10.00			
	24 J. A. Peck, commissioner				
	deeds, Missouri	5.00			
	June 7 F. H. King, notary public....	10.00			
July	8 H. S. Noon, notary public....	10.00			
	1 E. S. McGinn, notary public...	10.00			
	5 F. N. Smith, notary public	10.00			
	5 B. A. Dodge, notary public....	10.00			
	5 E. H. McLochlin, member bar.	10.00			
	7 A. F. Zipf, notary public	10.00			
	14 J. F. Hobbs, notary public	10.00			
	22 W. A. Barnhill, member bar .	10.00			
	22 J. J. Boyce, member bar	10.00			
	22 E. C. Kriete, member bar	10.00			
	22 E. Bruner, member bar	10.00			
	22 A. Fink, notary public	10.00			
	22 J. Cousby, notary public.....	10.00			
	22 V. L. Bevington, notary pub-				
Aug.	lic	10.00			
	4 C. J. Nunne, notary public...	10.00			
	4 G. D. Schofield, notary public.	10.00			
	4 P. J. Costen, notary public ...	10.00			
	4 J. Sullivan, notary public	10.00			
	4 F. H. Watt, notary public	10.00			
	4 L. F. Thomas, notary public	10.00			
	4 N. H. Castle, notary public...	10.00			
	8 F. M. Loomis, notary public	10.00			
	17 C. M. Johanson, notary pub-				
	lic	10.00			
	25 E. L. Wilson, notary public ..	10.00			
	Sept. 1 A. S. Kepner, notary public...	10.00			
	1 S. A. Keller, notary public...	10.00			
Sept.	1 E. M. Wilson, notary public...	10.00			
	9 G. Hall, notary public	10.00			
	17 R. V. Nye, notary public	10.00			
	22 J. J. Kennedy, member bar ..	10.00			
	22 W. M. Landers, member bar...	10.00			
	23 I. S. Thompson, notary pub-				
	lic	10.00			
Total		3,697.77	Total		3,697.77

WM. L. DISTIN, *Secretary of the District of Alaska.*

ALASKAN EXHIBIT AT THE LOUISIANA PURCHASE EXPOSITION.

The appropriation for the Alaskan exhibit at the Louisiana Purchase Exposition, made by act of Congress March 3, 1903, follows:

DISTRICT OF ALASKA EXHIBIT.

To enable the inhabitants of the district of Alaska to provide and maintain an appropriate and creditable exhibit of the products and resources of that District at the Louisiana Purchase Exposition in the city of Saint Louis, Missouri, in nineteen

hundred and four, and to erect and maintain on the site of said Exposition a suitable building to be used for the purpose of exhibiting the products and resources of said District, the sum of fifty thousand dollars, to be subject to the order of the Secretary of the Interior, who is hereby authorized to expend the same in such manner as in his judgment will best promote the objects for which said sum is appropriated, in accordance with the rules and regulations to be prescribed by him.

To execute this law the honorable Secretary of the Interior designated the Hon. Thomas Ryan, First Assistant Secretary of the Interior, chairman of an executive commission. It has been his aim to make the exhibit creditable, and to leave the work of collecting, installing, etc., the exhibit to the Executive Commission subject only to such supervision of expenditures as the law imposed upon the Secretary of the Interior. The Alaska building and its contents have been an attractive feature at the fair, and Alaskans who have visited the fair have expressed their satisfaction with Alaska's part in it.

SALMON CANNING INDUSTRY.

Those engaged in this business have been busy during the year and the total pack has amounted to 1,910,000 cases; for most part the establishments in southeast Alaska and along the southern shore have done well, but in Bristol Bay and at Karluk the catch was way below expectation. The market prices, however, continue favorable and perhaps the total value will not fall much below what it was a year ago. The various Commissions that have been sent out to report upon the salmon industry of Alaska have performed their labors conscientiously, and Mr. Kutchin, the special agent of the Treasury Department who annually makes his rounds among the canneries, has sent in his reports. Besides there are the reports of Captains Tanner and Moser, each of whom commanded the *Albatross*. Surely Congress does not need any more information to intelligently guide it in framing proper laws for salmon hatcheries to be conducted by Government officers. It should be emphasized that if the United States Fish Commission exists only for investigation and scientific purposes, then the District of Alaska should be set aside as an area by itself and a Commission organized which will see to the execution of the laws and to the doing of those things which will foster this valuable resource.

MINING.

In former reports the necessity for the creation of the office of mining commissioner for the district has been dwelt upon and urged. This important matter ought not to pass over another session of Congress without receiving the attention which it deserves. Mining is and will be the great industry of the country for years. The output each year is in the millions, yet the industry is not looked after nor fostered in any way by a properly authorized officer of the Government. Correct information and statistics can not be obtained, except in rare cases. This is not so in other lines, as in the seal and salmon fisheries, agriculture, and forestry.

PLACER.

The success of the placer diggings in the northern latitudes depends very much upon the kind of winter that has preceded and the sort of weather during the period of labor. The past summer may be said to

be the worst that Alaska has had since mining began. In the most northerly camps freezing began early and the ground froze deep before there was much or any snow. The total depth of snow was unusually small. The thawing period was late in the season. The water from the light snow soon ran off and left the frozen pay streak. Fine summer weather came in June and lasted till the latter part of August, when it began to rain. The real mining season was short. The placer miner's most serious problem, therefore, is how to get water for use in the proper season. Water rights have great value, and large capital has been invested in ditches to convey water to the claims. Machinery is used extensively, and at an increasing ratio year by year. A large amount of winter work is done in some of the camps.

The center of greatest interest was in the Fairbanks district. When it became certain that the discoveries were genuine, and that the area of mining ground was extensive, there was a stampede. The other camps up and down the Yukon were fairly emptied, and each steamboat leaving Dawson was filled to the utmost limit with freight and passengers. There is already a municipality organized. The mayor claims that the population of the Fairbanks district is 8,000, and that the clean up for the year was \$1,200,000. The output for the Seward Peninsula is estimated at \$6,000,000; that of Slate Creek, in Copper River Valley, \$350,000; Koyukuk River, \$700,000; Sushitna, \$50,000; Forty-Mile region, \$500,000; Kenai Peninsula, \$250,000; a total of \$9,050,000. The accuracy of these figures is not vouched for, but after conversation with men from the various camps it is believed to be a fair estimate of the placer production for the year. Many miners put their claims in excellent shape for next year, and if it is only an average year for water the output will increase.

QUARTZ MINING.

Somewhat of the lethargy of a political year has manifested itself in this industry. Excellent properties which need enlargement and reorganization were not noticed when offered for sale in eastern markets. Claims which are partially developed and yet prospect well received but small recognition from investors. This has been rather the prevailing tone. However, in the Berners Bay region enough has been ascertained to encourage the whole industry, for large bodies of good-paying ore have been developed, the total value of which can be accurately calculated, and it runs into millions. The blocking out of large ore bodies on these claims is being vigorously pushed, and will be carried on for some time before the proper reduction works shall be constructed. The claims more immediately north of Juneau, and those in Silver Bow Basin, promise better things as development work advances.

The permanency of the industry in this section of the district is well assured. This thought was emphasized by Mr. F. W. Bradley in a speech at a banquet held at Treadwell in August last. He is the consulting engineer for the London Exploration Company, and in the line of his duty has been visiting the Treadwell mines for several years. His attitude heretofore has been one of indifference rather to all other properties except the Treadwell claims. The findings at Berners Bay and at other places have caused him to investigate things a little more closely, and he now believes that the district around Juneau is one of

immense possibilities in quartz mining. This is very encouraging to all mining men. Mr. Bradley knows his subject, and is looked upon as most coldly conservative. The Rodman Bay mining properties, on the north end of Baranof Island, have been thrown into the hands of receivers. This case should be investigated and studied most carefully by mining people.

The claims were discovered some years ago and a company was organized. A 5-stamp mill was erected for prospecting purposes; then a wharf was built and a railroad 7 miles in length—almost all on trestles, sawmill, warehouses, store and other houses erected. A fine mill, with a capacity for 120 stamps, was erected, and 60 stamps were set up for work. Now, after a possible outlay of \$750,000, and at the moment when the works should be turning out bullion, they are in custody of the court. Mistakes in purchases of machinery, in transportation, and in construction may be made and tolerated, but if in this instance the trouble is as to the extent and value of the ore body the men who bear the responsibility should not be excused nor pardoned; they should be blacklisted and avoided by the mining community, as such methods result in incalculable harm to Alaska's mining interests.

Many hopeful enterprises are just under way and need much more capital to put them on a producing and profitable basis. A great enterprise which has cost hundreds of thousands of dollars without producing a cent in return, and suddenly thrown into a receiver's hands to wind it up, makes it hard and laborious for promoters who have properties of good and exceptional value to get any attention whatever. Alaska has suffered greatly in this way in years past. It is to be hoped that the clubs of mine owners and mine operators, which are organizing at Juneau and other centers will see to it that any man who has been identified with a reprehensible scheme shall be debarred, and that the capital which has been solicited and obtained for opening and developing mines shall be legitimately and conscientiously employed. When these miserable failures occur the discouraged claim owner or promoter can always turn to the Treadwell mines for solid golden arguments to convince the doubting, hesitating capitalist.

Day and night, month by month and year by year, the work goes on, producing steady output of gold from a very low-grade ore. Thousands of people share directly in the values obtained. The more low-grade mines which can be put in successful operation the better it will be for the community, for the product is distributed more evenly than in almost any other enterprise. This is what is occurring constantly at the Treadwell. It is a practical Normal School of Mines, and all who are engaged in the work should be students of its methods. The success of these mines from the time of John Treadwell, who began the work in 1882 to the present, is due most of all to honesty.

The management of these mines stands just as high in the estimation of Alaskans as the Bank of England does in the estimation of Britons. It is known by its works. Those who are interested in Alaska mining should study well the annual statements of the superintendent which are published yearly for a limited distribution. The report covering the operations of two of the mills of a combined capacity of 540 stamps has recently been published; 775,150 tons of ore were crushed, producing \$1,829,508, averaging \$2.36 per ton. If

the other 340 stamps of the Alaska-Mexican and the Alaska-United have crushed at the same rate, the whole output of the mines would be \$2,981,274.

TIN.

The investigations which were made this season in the neighborhood of Cape York where the ore was found, and to prove that the deposit of stream tin is extensive, and that there are also veins of the ore which are extensive and which can be profitably mined, some of the companies are bringing out large amounts of the ore to make practical tests. It is the belief of a number of men whose opinions are worthy of consideration that the product of these tin mines will be sufficient in a few years to supply the demand in the markets of the United States.

COPPER.

The mine at Ellamar, Prince William Sound, has produced 20,000 tons of ore, which were shipped to the Smelter at Tacoma, Wash. Shipments of this ore from Latouche Island, in the same sound, have begun. A number of other properties on this same sound are under development. Among these may be mentioned the Boulder Bay group of the Reynolds-Alaska Development Company. Development work was carried on upon the great ore bodies along the Chityna and its branches—especially upon the Elliott, Hubbard, and the Bonanza groups. These mines can not be profitably utilized until there is a railroad built to them. The copper ore deposits upon Prince of Wales Island have been undergoing development. Ore from one claim is shipped to a smelter in British Columbia. A smelter of large capacity is under construction at Hadley and another at Copper Mountain. There can be no doubt as to what Alaska will do in the near future in the way of copper production. Cheap water transportation favors the mines upon the coast, and the richness of the ore there and in the interior favors its being worked at a profit.

COAL.

Last year Doctor Martin of the Bureau of Geological Survey examined the measures which were opened near Kayak. The tests which were made show that the coal is high grade and is classed as the best on the Pacific coast. The developments this season have given astonishing and gratifying results. One company has cut across a vein from floor to roof and find that they have a thickness of clean semianthracite of 70 feet. Other veins of 40 and 12 feet are spoken of. One superintendent assures us that one vein is excellent for blacksmithing and another for coking purposes. The Navy Department should take an immediate interest in these discoveries, and send an expert to examine and report; for be it known that the two new coal sheds, which are at Sitka, are filled with coal brought from Cardiff, Wales. Now, if we have such immense measures within 450 miles of these sheds, we do not want foreign coal when our own is equally good. If we are about to make a coaling station on Kiska Island, one of the western Aleutian chain, with a capacity of 100,000 tons, it would be a great encouragement to our own people to fill the bunkers with coal from these mines.

The greatest obstacle in at once marketing this product is the very poor harbor facilities on Comptroller Bay. Flats make out from the mouth of the Copper, and what channels exist are shallow and are exposed to the open sea. Some are of opinion that the Copper River will have to be bridged and a railroad built to Orca, where there are good and safe anchorages for vessels. The amendments to the coal-land laws now enable claimants to obtain title by bearing the entire expense for surveys themselves. This burden is very heavy. Congress, in the matter of surveys, has not been generous. Every patent so far obtained has been at extraordinary expense to the entry man, especially has this been the case in applications under the law approved March 3, 1891.

PETROLEUM.

Much has been done during the season in drilling for oil in the Kayak district. The investigators are not publishing to the world their discoveries. No one can find fault for this. They are at very great expense on every hand—in drilling, in the transportation of all supplies, and heavy cost of surveying. Naturally they do not want a rush of the harpy kind, who would fatten on their labor. Much drilling has been done and several wells have been capped. The oil from one well is used for fuel. The oil is paraffin base, and all analyses prove it high grade. Much work has been done near Cold Bay, on Alaska Peninsula, but no flow has been started. The natural seepage here has deposited acres of paraffin wax. It is reported that one hole near Lake Illeanna was driven to the oil sands, and that it is now capped. The investigations so far are promising. Those who are prosecuting the work have many things to learn which are peculiar to the country and which would not be learned in other fields. The seasons are short, and they are far from bases of supplies. The completion of the cable and telegraph system of the Signal Corps will be a great aid to this industry.

The deposits of tin, copper, coal, and oil promise great things for Alaska in the near future.

DELEGATE.

We are graduates from the school of patience. We have learned to wait. We expect that a law allowing the district a delegate will be passed during the coming winter, and that it will not be loaded with any odious provisos. The majority of the people would prefer to elect such an officer, but there are many who would be satisfied or perhaps prefer that the law should require the President to appoint a bona fide resident of at least two years to act as delegate, and thus avoid the expense and strife and confusion of an election. Whatever Congress in its wisdom gives us we will accept; but of one thing there can not be any doubt, namely, that the district needs an authorized agent at Washington during the sessions of Congress to look after its affairs. If the lobby that assembles each year continues as large and as conflicting, Congress will have to grant the delegate in self-defense.

CONCLUSION.

Members of Congress, in discussing measures in behalf of Alaska, should not forget the fact that although Alaska produces great wealth

each year, this wealth does not remain in the Territory. The great fortunes which were made out of the fur industry did not remain in Alaska, but went to California and Eastern cities. The profits of the salmon canneries do not remain in Alaska. The dividends of the Treadwell mines are not distributed in Alaska; they are paid in London. The successful placer miners, who, in the aggregate, take out millions of gold, do not hunt up enterprises in the Territory for investment. Nearly every dollar of it finds its way south in the fall and seeks investment in other places. The people who live in Alaska and make it their home are relatively poor. The country, year by year, is drained of its wealth. If all this wealth could remain in the district like the annual increase of wealth remains in a State, for instance, like Missouri, there would be capital for enterprise and for taxation.

Legislation that will encourage the home seeker and home builder is what is needed. The first step has been taken by the passage of the liberal homestead law more than a year ago. The homesteaders have not been able to take advantage of this law on account of the high price for transportation to the great river valleys where the settlers would like to go. It requires railroads to open up Alaska for the thousands of good, hardy Americans who are ready to enter and occupy it. If three lines of railroads are built from the ports on the southern border across to Yukon River, an industrious, wide-awake American population will follow them as they build, and by dint of hard work will produce results equal to any that we have seen on the western frontier. Congress can make no mistake in preparing Alaska for our own people, who are becoming anxious to enter and possess it. The unfinished measures which are now before it are mainly along this line, but they are not adequate for the immediate opening of the country. This done, we shall all know in a very few years what form of government Alaska will demand and Congress most graciously grant, for the great heart of the country will speak—when we want an answer.

Respectfully, yours,

JOHN G. BRADY,
Governor of Alaska.

The SECRETARY OF THE INTERIOR,
Washington, D. C.

OFFICIAL DIRECTORY.

DISTRICT GOVERNMENT.

Governor: JOHN G. BRADY.

Ex officio secretary: William L. Distin.

UNITED STATES CUSTOMS DISTRICT.

Juneau.—David H. Jarvis, collector; Clarence L. Hobart, special deputy collector; John R. Willis, deputy collector; H. R. Shepard, deputy collector; Maurice S. Whittier, deputy collector; G. A. Jeffery, stenographer; Allen J. Walker, deputy collector and inspector; Richard T. Harris, inspector; William Reynolds, inspector.

Ketchikan.—John R. Beegle, Milson S. Dobbs, John F. Pugh, deputy collectors and inspectors.

Wrangell.—F. E. Bronson and Loyd V. Winters, deputy collectors and inspectors.

Sitka.—V. L. Holt, deputy collector and inspector.

Skagway.—Matthew Bridge, Fred S. Williams, D. P. Lea, E. F. Pitman, J. N. Wheeler, George G. Miller, George C. Carson, H. B. Flaharty, Nicholas E. Bolshanin, deputy collectors and inspectors.

Eagle.—C. L. Andrews, James H. Van Zandt, John J. Hillard, U. G. Myers, John M. Thomson, George W. Woodruff, deputy collectors and inspectors.

St. Michael.—L. U. Stenger, Robert H. Hill, Peter W. Brown, John E. Dobbs, deputy collectors and inspectors.

Nome.—C. D. Garfield, R. W. J. Reed, Edward D. Baldwin, H. B. Martin, deputy collectors and inspectors.

Unalaska.—John F. Sinnott, G. H. Van Houten, deputy collectors and inspectors.

Sand Point.—W. J. McDonnell, deputy collector and inspector.

Kodiak.—Frederick Sargent, deputy collector and inspector.

Valdez.—Edward B. Spiers, deputy collector and inspector.

UNITED STATES COURTS.

Division No. 1.—M. C. Brown, judge, Juneau; J. J. Boyce, United States district attorney, Juneau; James M. Shoup, United States marshal, Juneau; W. J. Hills, United States district clerk, Juneau; Walter S. Coutant, secretary to judge, Juneau; J. J. Clarke, deputy clerk, United States district court, Juneau; M. H. McLellan, deputy clerk, United States district court, Skagway; D. C. Abrams, deputy clerk, United States district court, Ketchikan; A. L. Collison, assistant clerk, United States district court, Juneau; J. J. Rogers, United States commissioner, Skagway; Edw. de Groff, United States commissioner, Sitka; G. W. Thomas, United States commissioner, Wrangell; E. S. Stackpole, United States commissioner, Ketchikan; William Duncan, United States commissioner, Metlakatla; W. B. Stout, United States commissioner, Haines; U. S. Rush, United States commissioner, Kasaan; John B. Sutton, United States commissioner, Shakan; Hans. Hansen, United States commissioner, Yakutat; L. A. Slane, United States commissioner, Hoonah; J. M. Johnson, United States deputy marshal, Skagway; John B. Heyburn, United States deputy marshal, Juneau; W. H. McNair, United States deputy marshal, Juneau; Arthur Shoup, United States deputy marshal, Ketchikan; W. G. Grant, United States deputy marshal, Wrangell; Frank Wiseman, United States deputy marshal, Haines.

Division No. 2.—Hon. Alfred S. Moore, judge; George V. Borchsenius, clerk; John H. Dunn, deputy clerk, Nome; Lawrence M. Sebring, deputy clerk, St. Michael; H. M. Hoyt, United States district attorney; George B. Grigsby, E. Coke Hill, and W. N. Landers, assistant United States district attorneys; Frank H. Richards, United States marshal; George A. Leekley, George W. Comerford, John H. D. Bouse, Thomas R. White, G. W. Johnson, and C. A. Mitchell, deputy United States marshals, Nome; S. C. Milligan, deputy United States marshal, Council; Isaak Evans,

deputy United States marshal, Teller; I. J. Crabtree, deputy United States marshal, Candle; A. H. Wilkes, deputy United States marshal, St. Michael; Fred Anderson, deputy United States marshal, Solomon; T. M. Reed, United States commissioner, Nome precinct, Nome; J. M. McDowell, United States commissioner, Council precinct, Council; S. C. Henton, United States commissioner, Port Clarence precinct, Teller; Lars Gunderson, jr., United States commissioner, Kougarok precinct, Igloo; A. S. Kepner, United States commissioner, Fairhaven precinct, Candle; Lawrence M. Sebring, United States commissioner, St. Michael precinct, St. Michael; M. F. Moran, United States commissioner, Noatak-Kobuk precinct, Riley Camp; Garrett Busch, United States commissioner, Nulato precinct, Nulato; F. T. Merritt, United States commissioner, Midas precinct, Midas Creek; Will Henry, United States commissioner, Solomon (without recording powers); Hugh J. Lee, United States commissioner, Wales (without recording powers); H. R. Marsh, United States commissioner, Point Barrow (without recording powers); Edgar O. Campbell, United States commissioner, St. Lawrence Island precinct, Gambell; Dana Thomas, United States commissioner, Friend's Mission (without recording powers).

Division No. 3.—Judge, James Wickersham, Eagle; United States attorney, Nathan V. Harlan, Eagle; clerk, Albert R. Heilig, Eagle; United States marshal, George G. Perry, Eagle. United States commissioners: Carl M. Johanson, Eagle; John L. Lyons, Valdez; S. M. Graff, Jackwade; Herman V. Nichols, Circle; J. Lindley Green, Rampart; Frank E. Howard, Coldfoot; E. L. Bosqui, Colville River; James E. Saunders, Chisna; F. D. Kelsey, Kodiak; John Niven, Dillingham; F. C. Driffield, Unga; N. Gray, Unalaska; H. H. Hildreth, Sunrise; George C. Britton, Catella; Edward J. Stier, Fairbanks. Assistant United States attorneys: Luther C. Hess, Eagle; Oliver P. Hubbard, Valdez. Deputy clerks: E. A. Henderson, Valdez; James B. Wingate, Rampart. Chief deputy marshal, E. E. Reynolds, Eagle. Deputy United States marshals: J. H. Lathrop, Valdez; Edgar Wickersham, Circle; Charles Dreibelbis, Rampart; J. H. Johnson, Coldfoot; Frank Clayton, Jackwade; John R. Richards, Unalaska; Louis L. Bowers, Kodiak; James Wardell, Catella; George Sexton, Sunrise; R. S. Bates, Nushagak. Official stenographer, Richard H. Geoghegan, Eagle. Deputy United States district attorney and license collector, Cecil H. Hegg.

United States land office: Surveyor-general, William L. Distin, Sitka; register, John W. Dudley, Juneau; receiver, T. M. Mullen, Juneau.

Department of Agriculture.—Experiment Stations: C. C. Georgeson, special agent in charge of Alaska investigations, Sitka; R. W. De Armond, horticulturist, Sitka; P. H. Ross, assistant in charge of Kenai Station, Kenai; J. W. Neal, assistant in charge of Copper Valley Station, Copper Center; F. E. Rader, assistant in charge of Rampart Station, Rampart.

Bureau of Education.—Agent, Sheldon Jackson, Washington, D. C.; assistant agent, William Hamilton, Washington, D. C.; superintendent of schools, southern district, W. A. Kelly, Sitka; northern district, W. T. Lopp, Teller.

Internal revenue.—John Cameron, deputy collector, Juneau.

Immigration inspector.—Kazis Krauczunas, Ketchikan.

Incorporated towns.—Ketchikan, Wrangell, Juneau, Douglas, Treadwell, Skagway, Eagle, Nome, Valdez, Fairbanks, and Chena.

Post-offices in Alaska with name, date of appointment, and compensation of each postmaster.

Office.	Postmaster.	Date of appointment.	Compensation.
Anvik	John W. Chapman	June 12, 1897	\$31.00
Apollo	Frank R. Brown	July 26, 1901	66.00
Barrow	H. Richmond Marsh	Sept. 9, 1901	10.00
Bettles	Volney Richmond	July 6, 1901	21.00
Bluff	Frank Wadellton	Sept. 9, 1901	40.00
Candles	Rodney S. Dimmick	July 24, 1901	44.00
Catalla	A. Charles Williams	Mar. 25, 1904	.....
Chicken	Leonard R. Radcliffe	Mar. 14, 1903	.....
Chignik	Joseph W. Hume	Feb. 27, 1901	13.00
Chisna	Arthur H. McNeer	Mar. 15, 1901	33.00
Chomly	George E. King	Apr. 29, 1904	19.00
Circle	James T. Cowles	Dec. 13, 1902	191.00
Coal Harbor	Henry S. Tibbey	Aug. 18, 1902	8.00
Coldfoot	Agnes E. Plummer	Oct. 17, 1902	.....
Copper Center	Rengwald Blix	Nov. 14, 1901	75.00
Coppermount	Robert H. Mellen	Jan. 17, 1901	44.00
Council	Charles Lubbe	July 20, 1901	205.00
Deering	Birdie L. Gurry	Aug. 27, 1902	180.00
Dolomi	Henry F. Burkhart	June 30, 1900	92.00
Douglas	Robert R. Hubbard	Dec. 15, 1902	1,200.00
Eagle	Lulu J. Thompson	Sept. 18, 1900	352.00

Post-offices in Alaska with name, date of appointment, and compensation of each postmaster—
Continued.

Office.	Postmaster.	Date of appointment.	Compensation.
Ellamar	Joshua D. Meenach	Aug. 18, 1900	\$760.00
Fairbanks	Elbridge T. Barnette	Apr. 10, 1903	.....
Fort Liscum	George F. Kane	Nov. 5, 1900	122.00
Fort Yukon	Henry R. Mountifield	Dec. 6, 1900	83.00
Franklin	Albert B. Jones	Nov. 25, 1902	.....
Funter Bay	James T. Barron	June 24, 1904	10.00
Golovin	Henry E. Griffin	Sept. 3, 1901	56.00
Grindall	Isaac J. Tomilson	June 23, 1900	27.00
Haines	William B. Stout	Feb. 19, 1900	350.00
Hollis	Martin V. Loy	July 9, 1901	138.00
Homer	Stephen T. Pemberthy	Oct. 3, 1896	42.00
Hoonah	Louisa Kane	Jan. 24, 1903	76.00
Hope	Emeline Petellin	Oct. 19, 1900	50.00
Igloo	Michael J. Farrell	Aug. 23, 1901	13.00
Jackson	John L. Gould	Apr. 11, 1890	47.00
Jackwade	Richard F. Oberlander	Sept. 20, 1902	75.00
Jualin	Wilford B. Hoggatt	Aug. 2, 1901	12.00
Juneau	E. J. Brooks	Nov. 17, 1903	1,600.00
Karluk	John G. Kopp	Sept. 22, 1898	76.00
Kasaan	Louis A. Babcock	Jan. 24, 1900	180.00
Kayak	Newton H. Smith	Oct. 17, 1902	87.00
Kenai	George S. Means	June 17, 1901	76.00
Ketchikan	Edward J. Williams	Apr. 6, 1904	1,000.00
Keewalick	Martin F. Moran	Aug. 14, 1902	10.00
Killishnoo	Carl Spuhn	Feb. 19, 1882	128.00
Klawock	Harry F. Swift	Mar. 17, 1900	43.00
Kodiak	Henry P. Cope	Apr. 13, 1901	216.00
Koserefsky	Aloysius J. Markham	July 19, 1902	223.00
Kotzebue	Dana H. Thomas	Dec. 11, 1902	.....
Loring	Emma W. Knights	Apr. 6, 1904	169.00
Mastodon	Walter P. Fell	Aug. 6, 1902	22.00
Metlakathla	James Wallace	Apr. 20, 1904	40.00
Niblack	Warren H. Wescott	July 28, 1892	7.00
Nome	Frank W. Swanton	Jan. 21, 1902	1,800.00
Nulato	Julius Jelte	June 21, 1901	96.00
Nushagak	Aug. H. Mittendorf	Mar. 24, 1903	.....
Orca	Wm. J. Shepard	Oct. 3, 1900	80.00
Petersburg	Richard B. Mays	June 3, 1904	195.00
Porcupine	Thos. G. Woodruff	June 12, 1901	208.00
Rampart	Milton P. Fleischman	July 2, 1898	224.00
Rodman	Herbert F. Widdicombe	Jan. 24, 1903	75.00
St. Michael	Ashby E. Bain	Aug. 13, 1900	417.00
Sandpoint	Harry B. Scott	June 12, 1897	46.00
Sealevel	Edward C. Morse	Feb. 2, 1900	105.00
Seldovia	James Clegghorn	July 2, 1902	56.00
Seward	Lillie N. Gordon	Oct. 10, 1903	.....
Shakan	Chas. C. Carroll	May 28, 1902	109.00
Shungnak	Martin F. Moran	Sept. 24, 1903	.....
Sitka	Sidney E. Flower	June 3, 1904	755.00
Skagway	Wm. B. Sampson	Dec. 17, 1903	1,800.00
Snettisham	John N. Tisdale	Apr. 18, 1900	60.00
Solomon	Loren B. Gass	Sept. 2, 1902	9.00
Sullivan	Jas. C. Murray	July 26, 1902	.....
Sulzer	Aaron Shellhouse	Dec. 30, 1902	42.00
Sumdum	John C. McBride	Apr. 26, 1902	95.00
Sunrise	Henry A. Smith	May 9, 1899	94.00
Tanana	George H. Tiffany	Apr. 6, 1904	187.00
Teller	Thomas G. Wilson	Aug. 12, 1901	163.00
Tenakee	Edward Snyder	Mar. 13, 1903	61.00
Tonka	Oretto P. Brown	May 29, 1902	61.00
Tonsina	Jacob Nafted	Aug. 22, 1903	.....
Treadwell	Robert J. Willis	Feb. 4, 1902	480.00
Tyoonok	Thomas W. Hammore	Nov. 17, 1896	31.00
Udakta	Henry N. Nice	Sept. 17, 1900	137.00
Unalakleet	Alex. E. Karlsen	Dec. 10, 1901	29.00
Unalaska	Nicholas Gray	May 12, 1899	92.00
Unga	Fredk. C. Duffield	June 18, 1901	56.00
Uyak	Fredk. A. Davidson	Feb. 7, 1903	30.00
Valdez	Gustav Sponberg	Mar. 2, 1904	1,000.00
Wales	Susie R. Bernardi	Aug. 16, 1902	13.00
Woodsky	Thomas J. Maloney	Jan. 24, 1903	60.00
Wrangell	John E. Worden	Feb. 19, 1902	773.00
Yakutat	August Berggren	Mar. 27, 1901	80.00

Members of the Alaska bar.

Name.	Received.	Post-office address.	Division No.
J. C. Applewhite	Feb. 12, 1904	Nome, Alaska	2
Andrew F. Burleigh	Nov. 9, 1903	New York City	1
Wm. A. Barnhill	July 22, 1904	Juneau	1
John J. Boyce	do	do	1
Edward Bruner	do	Nome	2
Francis W. Cushman	Nov. 9, 1903	Tacoma, Wash	2
Joseph H. Murray	Dec. 8, 1903	New York City	2
Axel Chytraus	Feb. 12, 1904	Nome, Alaska	3
C. M. Frazier	May 17, 1904	Eagle, Alaska	3
James J. Godfrey	Nov. 9, 1903	Seattle, Washington	3
Phillip Gallagher	do	Koyukuk, Alaska	3
George B. Grigsby	Feb. 12, 1904	Nome, Alaska	2
W. B. Heyburn	Nov. 9, 1903	Boise City, Idaho	2
G. M. Irwin	Nov. 4, 1903	Unknown	2
H. A. Ingalls	Feb. 12, 1904	Nome, Alaska	2
E. C. Kriete	July 22, 1904	do	2
J. J. Kennedy	Sept. 22, 1904	do	2
W. N. Landers	do	do	2
G. H. Meyer	Feb. 12, 1904	do	2
O. G. Meyers	May 17, 1904	Eagle, Alaska	3
J. M. McDowell	Feb. 12, 1904	Nome, Alaska	2
E. H. McLochen	July 5, 1904	Unknown	2
W. H. Peckwood	Feb. 12, 1904	Nome, Alaska	3
Edmund Smith	Nov. 9, 1903	Valdez, Alaska	2
N. Soderberg	Feb. 12, 1904	Nome, Alaska	3
Leroy Tozier	May 17, 1904	Eagle, Alaska	3

Appointments of notaries public for Alaska.

[Appointed by John G. Brady.]

Date received.	Name.	Post-office address.	Bond filed.	Commission.	
				Issued.	Expires.
1903.			1903.	1903.	1907.
Oct. 3	J. P. Kelly	Council City, Alaska	Oct. 3	Oct. 3	Oct. 3
3	T. G. Wilson	Teller, Alaska	do	do	Do.
26	H. B. Scott	Sand Point, Alaska	Oct. 26	Oct. 26	Oct. 26
Nov. 9	F. Moran	Wickersham, Alaska	Nov. 9	Nov. 9	Nov. 9
16	S. C. Henton	Teller, Alaska	Nov. 16	Nov. 16	Nov. 16
17	M. Barker	Nome, Alaska	Nov. 17	Nov. 17	Nov. 17
17	N. H. Bard	do	do	do	Do.
Dec. 8	C. H. Clagg	Valdez, Alaska	Dec. 8	Dec. 8	Dec. 8
10	B. B. Lockhart	do	Dec. 10	Dec. 10	Dec. 10
14	S. Ripinsky	Haines, Alaska	Dec. 14	Dec. 14	Dec. 14
1904.			1904.	1904.	1908.
Feb. 23	W. A. Kelly	Sitka, Alaska	Feb. 23	Feb. 23	Feb. 23
Mar. 19	L. S. Posnera	New York City	Mar. 19	Mar. 19	Mar. 19
21	G. H. Meyer	Council City, Alaska	Mar. 21	Mar. 21	Mar. 21
30	L. C. Hess	Eagle, Alaska	Mar. 30	Mar. 30	Mar. 30
30	H. P. Gallagher	Koyukuk, Alaska	do	do	Do.
Apr. 4	J. W. Albright	Nome, Alaska	Apr. 4	Apr. 4	Apr. 4
8	A. J. Adams	Valdez, Alaska	Apr. 8	Apr. 8	Apr. 8
8	C. K. Pettingill	Seward, Alaska	do	do	Do.

[Appointed by W. L. Distin, acting governor.]

1904.					
Apr. 22	D. H. Jones	Eagle, Alaska	Apr. 22	Apr. 22	Apr. 22
May 4	J. Henson	Douglas Island, Alaska	May 4	May 4	May 4
6	W. M. French	Cattella, Alaska	May 6	May 6	May 6
7	J. H. Brownlow	Sunrise, Alaska	May 7	May 7	May 7
13	P. D. Blodgett	Kodiak, Alaska	May 13	May 13	May 13
13	N. M. Davidson	Juneau, Alaska	do	do	Do.
20	M. P. Brausfield	Seward, Alaska	May 20	May 20	May 20
24	J. A. Peck	St. Louis, Mo	do	do	Do.
June 7	F. H. King	Kayak, Alaska	June 7	June 7	June 7
8	H. S. Noon	Sullivan City, Alaska	June 8	June 8	June 8
July 1	E. S. McGinn	Nome, Alaska	July 1	July 1	July 1
5	F. N. Smith	Eagle, Alaska	July 5	July 5	July 5
5	B. A. Dodge	Fairbanks, Alaska	do	do	Do.
7	A. F. Zipp	St. Michael, Alaska	July 7	July 7	July 7

a Commissioners of deeds.

Appointments of notaries public for Alaska—Continued.

Date received.	Name.	Post-office address.	Bond filed.	Commission.	
				Issued.	Expires.
1904.					
July 14	J. F. Hobbs.....	Nome, Alaska	July 14	July 14	July 14
22	A. Fink	do	July 22	July 22	July 22
22	J. Cousby	do	do	do	Do.
22	V. L. Bevington.	Eagle, Alaska	do	do	Do.
Aug. 4	C. J. Numme	Nome, Alaska	Aug. 4	Aug. 4	Aug. 4
4	G. D. Schofield	do	do	do	Do.
4	P. J. Coston	do	do	do	Do.
4	J. Sullivan	do	do	do	Do.
4	P. H. Watt	do	do	do	Do.
4	L. F. Thomas	do	do	do	Do.
4	N. H. Castle	Council City, Alaska	do	do	Do.
8	F. M. Loomis	Dolomi, Alaska	Aug. 8	Aug. 8	Aug. 8

[Appointed by John G. Brady.]

1904.					
Aug. 17	C. M. Johansen	Fairbanks, Alaska	Aug. 17	Aug. 17	Aug. 17
25	E. L. Wilson	do	Aug. 25	Aug. 25	Aug. 25
Sept. 1	A. S. Kepner	Candle, Alaska	Sept. 1	Sept. 1	Sept. 1
1	S. A. Keller	Council City, Alaska	do	do	Do.
1	E. M. Wilson	Fairbanks, Alaska	do	do	Do.
9	G. Hall	Nome, Alaska	Sept. 9	Sept. 9	Sept. 9
17	R. V. Nye	Fairbanks, Alaska	Sept. 17	Sept. 17	Sept. 17
23	I. S. Thompson	Nome, Alaska	Sept. 23	Sept. 23	Sept. 23

Newspapers in Alaska.—Alaskan, Sitka; The Daily Record Miner, Juneau; The Daily Alaskan, Skagway; Daily Alaska Dispatch, Juneau; Alaska Forum, Rampart; The Douglas Island News, Douglas; The Nome Gold Digger, Nome; Nome Semi-Weekly News, Nome; Alaska Daily Guide, Skagway; The Orphanage News Letter, Wood Island; The Valdez News, Valdez; Nome Semi-Weekly Nugget, Nome; The Mining Journal, Ketchikan; The Alaska Prospector, Valdez; Alaska Sentinel, Wrangell; Yukon Valley News, Rampart; Council City News, Council City; Seward Gateway, Seward; The Alaska Transcript, Juneau.

Indian police.—Augustus Bean, Sitka; Kat le an, Sitka; Koo tuk teek, Killisnoo; William H. Lewis, Wrangell; William Dickinson, Ketchikan; Willis Hammond, Hoonah; Kla tee do, Yakutat; Son i hat, Kasaan; Thomas Smuck, Klawack; George Hall, Metlakatla; William Jackson, Haines; Charles Gunnock, Kake; Yalth hock, Kluckwan; Edward Scott, Klinkwan; David Kinnenook, Saxman; Henry Kwulwul, Circle; John Reese, Tanana; William Richteroff, Iliamna Village; William Pitgu, Rampart; Waska, Bethel.

APPENDIXES.

APPENDIX A.

HOMESTEAD ENTRIES IN ALASKA.

DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,
Washington, D. C., April 8, 1903.

REGISTER AND RECEIVER,
Juneau, Alaska.

GENTLEMEN: Your attention is called to the provisions of the act of Congress approved March 3, 1903 (Public No. 152), entitled "An act to amend section one of the act of Congress approved May fourteenth, eighteen hundred and ninety-eight, entitled 'An act extending the homestead laws and providing for a right of way for railroads in the district of Alaska,' " a copy of which is hereto attached.

The act provides that "no indemnity, deficiency, or lieu land selections pertaining to any land grant outside of the district of Alaska, shall be made, and no land scrip or land warrant of any kind whatsoever shall be located within or exercised upon any lands in said district, except as now provided by law: *And provided further*, That no more than one hundred and sixty acres shall be entered in any single body by such scrip, lieu selection, or soldier's additional homestead right."

There is no existing law whereby indemnity, deficiency, or lieu land selections pertaining to any land grant, or scrip or warrants, may be located upon any lands in Alaska.

No such locations will, therefore, be allowed by you.

Full instructions with reference to the general homestead law will be found in the general circular of July 11, 1899, as well as special instructions under the act of May 14, 1898 (30 Stat., 409), concerning homesteads, etc., in Alaska, and will, so far as applicable, govern the making of entries and proofs under this act, except as modified herein.

The act of 1898, *supra*, is amended so as to provide that no entry shall be allowed extending more than 160 rods along the shore of any navigable water and to provide that no homestead entry shall be allowed for more than 320 acres.

In executing surveys for homestead applications the instructions now prevailing will be followed, and the limit of 160 rods as to frontage will be measured along the meandered line of said frontage.

The form of the tract sought to be entered, if upon *unsurveyed* land, is prescribed in the act as follows:

"If any of the land * * * is unsurveyed, then the land * * * must be in rectangular form, not more than a mile in length, and located upon north and south lines run according to the true meridian."

The above is construed to mean that the boundary lines of each entry must be run in cardinal directions, i. e., true north and south and east and west lines by reference to a true meridian (not magnetic), with the exception of the meander lines on meanderable streams and navigable waters forming a part of the boundary lines of the entry. Thus a frontage meander line and other meander lines which form part of the boundary of a claim will be run according to the directions in the *Manual*, but *other* boundary lines will be run in true east and west and north and south directions, thus forming rectangles, except at intersections with meander lines.

The limit of 1 mile in length for each entry is held to be 80 chains in aggregate easting or westing, or 80 chains in aggregate northing or southing.

In other respects the rules previously adopted to govern surveys of claims under the act of May 14, 1898, will continue to be followed by you, of course taking into consideration the limitations as to area of claims.

Every person who is qualified under existing laws to make a homestead entry of the public lands of the United States, who has heretofore settled upon any of the unsurveyed public lands of the United States in the district of Alaska, with the intention of taking the same under the homestead law, *shall, within ninety days from date hereof, or prior to the intervention of an adverse claim, file the record of his location for record in the recording district in which the land is situated, as provided by sections 13 to 16 of the act of June 6, 1900 (31 Stat., 326 to 328).*

Every such person who hereafter settles upon any of said unsurveyed land, shall, within ninety days from the date of settlement, or prior to the intervention of an adverse claim, file the record of his location for record in the recording district in which the land is situated, in the manner above stated.

Said record shall contain the name of the settler, the date of settlement, and such a description of the land settled upon, by reference to some natural object or permanent monument, as will identify the same.

If at the expiration of the time required under sections 2291 and 2292, R. S., and as modified by section 2305, R. S., or at such date as the settler desires to commute under section 2301, R. S., the public surveys have not been extended over the land located, the locator may secure patent for the land located, by procuring at his own expense, a survey of the land, which must be made by a deputy surveyor who has been duly appointed by the surveyor-general, in accordance with section 10 of the act of May 14, 1898 (30 Stat., 409).

When the survey is approved by the surveyor-general under authority of this office, the same rules should be followed as in soldiers' additional certified rights; in addition to which the settler must furnish the required proof of residence and cultivation.

You will use the regular homestead and final proof blanks (forms 4-007, 4-063, 4-062, and 4-369) and continue the series of original and final numbers as now used in soldiers' additional cases, except in commutation you will continue the regular cash series of numbers instead of the final homestead series.

When a settler desires to commute the survey and homestead application must cover his entire claim, but only 160 acres or less thereof may be commuted, in which event the entry will stand intact as to the portion not commuted, subject to future compliance with the requirements of law within the statutory period of seven years.

You will require entrymen who commute to pay, in addition to the price of \$1.25 per acre, the same fees and commissions as in final homesteads.

Report the entries hereunder at the close of each month in the usual way, and if you have not on hand the regular blanks for allowing entries and for your reports you should at once make requisition on this office therefor.

Very respectfully,

J. H. FIMPLE, *Acting Commissioner.*

Approved:

E. A. HITCHCOCK,
Secretary.

(PUBLIC NO. 152.)

AN ACT To amend section one of the act of Congress approved May fourteenth, eighteen hundred and ninety-eight, entitled "An act extending the homestead laws and providing for a right of way for railroads in the district of Alaska."

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That all the provisions of the homestead laws of the United States not in conflict with the provisions of this act, and all rights incident thereto, are hereby extended to the district of Alaska, subject to such regulations as may be made by the Secretary of the Interior; and no indemnity, deficiency, or lieu land selections pertaining to any land grant outside of the district of Alaska shall be made, and no land scrip or land warrant of any kind whatsoever shall be located within or exercised upon any lands in said district, except as now provided by law: And provided further, That no more than one hundred and sixty acres shall be entered in any single body by such scrip, lieu selection, or soldier's additional homestead right: And provided further, That no location of scrip, selection or right along any navigable or other waters shall be made within the distance of eighty rods of any lands, along such waters, theretofore located by means of any such scrip or otherwise: And provided further, That no commutation privileges shall be allowed in excess of one hundred and sixty acres included in any homestead entry under the provisions hereof: Provided, That no entry shall be allowed extending more than one hundred and sixty rods along the shore of any navigable water, and along such shore a space of at least eighty rods shall be reserved from entry between all such claims; and that nothing herein contained shall be so construed as to authorize entries to be made

or title to be acquired to the shore of any navigable waters within said district: and no patent shall issue hereunder until all the requirements of sections twenty-two hundred and ninety-one, twenty-two hundred and ninety-two, and twenty-three hundred and five of the Revised Statutes of the United States have been fully complied with as to residence, improvements, cultivation, and proof, except as to commuted lands as herein provided: *And it is further provided*, That every person who is qualified under existing laws to make homestead entry of the public lands of the United States who has settled upon or who shall hereafter settle upon any of the public lands of the United States situated in the district of Alaska, whether surveyed or unsurveyed, with the intention of claiming the same under the homestead laws, shall, subject to the provisions and limitations hereof, be entitled to enter three hundred and twenty acres or a less quantity of unappropriated public land in said district of Alaska. If any of the land so settled upon, or to be settled upon, is unsurveyed, then the land settled upon, or to be settled upon, must be located in a rectangular form, not more than one mile in length, and located by north and south lines run according to the true meridian; that the location so made shall be marked upon the ground by permanent monuments at each of the four corners of the said location, so that the boundaries of the same may be readily and easily traced; that the record of said location shall, within ninety days from the date of settlement, be filed for record in the recording district in which the land is situated. Said record shall contain the name of the settler, the date of the settlement, and such a description of the land settled upon, by reference to some natural object or permanent monument, as will identify the same; and if, after the expiration of the said period of five years, or at such date as the settler may desire to commute the public surveys of the United States have not been extended over the land located, a patent shall nevertheless issue for the land included within the boundaries of said location as thus recorded, upon proof to be submitted to the register and receiver of the proper land office, upon proof that he is a citizen of the United States, and upon the further proof required by section twenty-two hundred and ninety-one of the Revised Statutes of the United States as heretofore and herein amended, and under the procedure in the obtaining of patents to the unsurveyed lands of the United States, as provided for by section ten of the act hereby amended, and under such rules and regulations as shall be prescribed by the Secretary of the Interior as hereinbefore provided, without the payment of any purchase price or other charges, except the ordinary office fees and commissions of the register and receiver, except one dollar and twenty-five cents per acre on land commuted: *And provided always*, That no title shall be obtained hereunder to any of the mineral or coal lands of the district of Alaska: *And it is further provided*, That the right of any homestead settler to transfer any portion of the land so settled upon, as provided by section twenty-two hundred and eighty-eight of the Revised Statutes of the United States, shall be restricted and limited within the district of Alaska as follows: For church, cemetery, or school purposes to five acres, and for the right of railroads across such homestead to one hundred feet in width on either side of the center line of said railroad; and all contracts by the settler made before his receipt of patent from the Government, for the conveyance of the land homesteaded by him or her, except as herein provided, shall be held null and void.

Approved, March 3, 1903.

APPENDIX B.

REGULATIONS FOR THE PROTECTION OF GAME IN ALASKA FOR THE YEAR 1904.

U. S. DEPARTMENT OF AGRICULTURE,
OFFICE OF THE SECRETARY,
Washington, D. C., June 4, 1904.

The primary object of the Alaska game law is the preservation of game for the use of the people of Alaska, native and white. This is accomplished chiefly by stopping the export of deer hides and by restricting the killing and shipment of big game as trophies. Prior to the enactment of the law thousands of deer were slaughtered each year for their hides, and these hides were shipped out of the Territory. This export has now practically ceased.

There seems to have been some misunderstanding respecting certain privileges conferred by the law. Attention therefore is again called to the provision in section 1 which allows Indians, Eskimo, miners, or explorers in need of food or clothing to kill game for their immediate use. Attention is also called to the fact that the clause in section 5, prohibiting shipment of hides and heads, does not apply to bears, hence

the skins of large brown bears and bears of all kinds may be shipped from any point in Alaska without the formality of a permit; and in view of a widespread feeling that the protection afforded bears is unnecessary, the open season is here materially extended. Certain other changes in open seasons which experience has shown may be made without injury to the game will be found in regulation 2.

During the past session of Congress a bill was introduced making radical changes in the law and in the system of issuing permits. As this bill is still pending and will doubtless receive attention at the next session, the issue of permits will remain practically suspended for the present, and few if any permits for the shipment of trophies of moose, caribou, or sheep will be issued during 1904.

TEXT OF THE ACT.

The act (32 Stat. L., 327) reads as follows:

AN ACT For the protection of game in Alaska, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That from and after the passage of this act the wanton destruction of wild game animals or wild birds, the destruction of nests and eggs of such birds, or the killing of any wild birds other than a game bird, or wild game animal, for the purposes of shipment from Alaska is hereby prohibited.

Game defined: The term "game animals" shall include deer, moose, caribou, sheep, mountain goats, bears, sea lions, and walrus. The term "game birds" shall include waterfowl, commonly known as ducks, geese, brant, and swans; shore birds, commonly known as plover, snipe, and curlew, and the several species of grouse and ptarmigan. Nothing in this act shall effect [affect] any law now in force in Alaska relating to the fur seal, sea otter, or any fur-bearing animal other than bears and sea lions, or prevent the killing of any game animal or bird for food or clothing by native Indians or Eskimo or by miners, explorers, or travelers on a journey when in need of food; but the game animals or birds so killed shall not be shipped or sold.

Seasons: SEC. 2. That it shall be unlawful for any person in Alaska to kill any wild game animals or wild birds except during the seasons hereinafter provided: Large brown bears, from April fifteenth to June thirtieth, both inclusive; moose, caribou, walrus, and sea lions, from September first to October thirty-first, both inclusive; deer, sheep, and mountain goats, from September first to December fifteenth, both inclusive; grouse, ptarmigan, shore birds, and waterfowl, from September first to December fifteenth, both inclusive: *Provided,* That the Secretary of Agriculture is hereby authorized whenever he shall deem it necessary for the preservation of game animals or birds to make and publish rules and regulations which shall modify the close seasons hereinbefore established, or provide different close seasons for different parts of Alaska, or place further restrictions and limitations on the killing of such animals and birds in any given locality, or to prohibit killing entirely for a period not exceeding five years in such locality.

Number: SEC. 3. That it shall be unlawful for any person at any time to kill any females or yearlings of moose, caribou, deer, or sheep, or for any one person to kill in any one year more than the number specified of each of the following game animals: Two moose, walrus, or sea lions; four caribou, sheep, goats, or large brown bears; eight deer; or to kill or have in possession in any one day more than ten grouse, or ptarmigan, or twenty-five shore birds or waterfowl.

Guns and boats: That it shall be unlawful for any person at any time to hunt with hounds, to use a shotgun larger than number ten gauge, or any gun other than that which can be fired from the shoulder, or to use steam launches or any boats other than those propelled by oars or paddles in the pursuit of game animals or birds. And the Secretary of Agriculture is authorized to make and publish such further restrictions as he may deem necessary to prevent undue destruction of wild game animals or wild birds.

Sale: SEC. 4. That it shall be unlawful for any person or persons at any time to sell or offer for sale any hides, skins, or heads of any game animals or game birds in Alaska, or to sell, or offer for sale therein, any game animals or game birds, or parts thereof, during the time when the killing of said animals or birds is prohibited: *Provided,* That it shall be lawful for dealers having in possession any game animals or game birds legally killed during the open season to dispose of the same within fifteen days after the close of said season.

Export: SEC. 5. That it shall be unlawful for any person, firm, or corporation or their officers or agents to deliver to any common carrier, or for the owner, agent, or master of any vessel or for any other person to receive for shipment or have in pos-

session with intent to ship out of Alaska any hides or carcasses of caribou, deer, moose, mountain sheep or mountain goat, or parts thereof, or any wild birds or parts thereof: *Provided*, That nothing in this act shall be construed to prevent the collection of specimens for scientific purposes, the capture or shipment of live animals and birds for exhibition and propagation, or the export from Alaska of specimens and trophies, under such restrictions and limitations as the Secretary of Agriculture may prescribe and publish.

Penalties: SEC. 6. That any person violating any of the provisions of this act or any of the regulations promulgated by the Secretary of Agriculture shall be deemed guilty of a misdemeanor, and upon conviction thereof shall forfeit to the United States all game or birds in his possession, and all guns, traps, nets, or boats used in killing or capturing said game or birds, and shall be punished for each offense by a fine of not more than two hundred dollars or imprisonment not more than three months, or by both such fine and imprisonment, in the discretion of the court: *Provided*, That upon conviction for the second or any subsequent offense there may be imposed in addition a fine of fifty dollars for any violation of sections one and three, and a fine of one hundred dollars for a violation of section two.

Enforcement: It is hereby made the duty of all marshals and deputy marshals, collectors or deputy collectors of customs appointed for Alaska, and all officers of revenue cutters to assist in the enforcement of this act. Any marshal or deputy marshal may arrest without warrant any person found violating any of the provisions of this act or any of the regulations herein provided, and may seize any game, birds, or hides, and any traps, nets, guns, boats, or other paraphernalia used in the capture of such game or birds and found in the possession of said person, and any collector or deputy collector of customs, or any person authorized in writing by a marshal, shall have the power above provided to arrest persons found violating this act or said regulations and seize said property without warrant, to keep and deliver the same to a marshal or a deputy marshal. It shall be the duty of the Secretary of the Treasury upon request of the Secretary of Agriculture to aid in carrying out the provisions of this act: *Provided further*, That nothing contained in the foregoing section of this act shall be construed or held to prohibit or limit the right of the Smithsonian Institution to collect in or ship from the district of Alaska animals or birds for the use of the Zoological Park in Washington, District of Columbia: *Provided further*, That such heads and hides as may have been taken before the passage of this act may be shipped out of Alaska at any time prior to the first day of July, anno Domini nineteen hundred and two.

Approved, June 7, 1902.

REGULATIONS FOR 1904.

In accordance with the foregoing act, conferring upon the Secretary of Agriculture authority to modify the close seasons for game, to provide different close seasons for different parts of Alaska, to make further restrictions necessary to prevent undue destruction of game, and to prescribe restrictions governing the collection of specimens for scientific purposes, the capture of live animals, and the shipment of specimens and trophies, the following regulations are hereby prescribed to take effect August 1, 1904:

1. DISTRICTS.

For the purposes of this act the following game districts are hereby established:

- (1) The Sitka district, comprising southeastern Alaska east of the 141st meridian.
- (2) The Peninsula district, comprising the Aleutian Islands, the Alaska and Kenai peninsulas and adjacent islands, and that part of Alaska west of the 141st meridian which drains into the Pacific Ocean.
- (3) The Yukon district, comprising northwestern Alaska north of the Peninsula district, including the area drained by the Kuskokwim, Tanana, Yukon, and Kowak rivers, and the area which drains into the Arctic Ocean.

2. SEASONS

Bear.—The open season for large brown bears throughout Alaska is hereby modified to extend from April 1 to December 31, both inclusive. There is no close season on black bears.

Deer.—The open season for deer in the Sitka game district is hereby modified to extend from August 1 to January 31, both inclusive.

Moose and sheep.—The open season for moose and sheep throughout Alaska is hereby modified to extend from September 1 to December 31, both inclusive.

Caribou.—The open season for caribou in the Yukon game district is hereby modified to extend from September 1 to December 31, both inclusive. In the Peninsula

district, killing caribou on the Kenai Peninsula (except for scientific purposes under special permit) is prohibited prior to September 1, 1908.

Goats.—The open season for goats throughout Alaska is hereby modified to extend from August 1 to December 31, both inclusive.

Walrus.—The regulation of August 22, 1903, establishing a closed zone for walrus is hereby modified to read as follows: Killing walrus south of a line drawn from the north end of St. Matthew Island to Cape Vancouver (except by natives or for scientific purposes under special permit) is hereby prohibited prior to September 1, 1908.

Ptarmigan and waterfowl.—The open season for ptarmigan and waterfowl throughout Alaska is hereby modified to extend from September 1 to January 31, both inclusive.

3. HOUNDING.

Hunting deer, moose, or caribou with hounds or other dogs in any part of Alaska is strictly prohibited.

4. PERMITS.

The Department can not grant permits extending from one year to another, as the law and regulations are subject to change; neither can it issue indefinite authorizations to persons to bring out "any trophies which may be obtained during the trip." All permits will expire on December 31 of the year of issue, but consignments actually shipped before such expiration may be admitted on arrival in Seattle or San Francisco.

Permits to collect mammals, birds, nests, or eggs for scientific purposes will be issued only to regular representatives of public museums, or, under exceptional circumstances, to persons who are known to be engaged in making special investigations. Applicants should state the region where specimens are to be collected and the port and probable date of shipment.

5. SPECIMENS FOR SCIENTIFIC PURPOSES.

Packages containing specimens for scientific purposes offered for shipment must be marked "Specimens for scientific purposes," or words to like effect, and must bear the shipper's name and address. Inattention to these details will render packages subject to examination and detention by officers of the customs. Packages of specimens addressed to the U. S. Department of Agriculture, the Smithsonian Institution, or the U. S. National Museum, if properly marked, may be shipped without permit and without examination. Packages addressed to individuals, whether officers of Executive Departments or not, must be accompanied by permit.

6. LIVE ANIMALS AND BIRDS.

Consignments of live animals or birds for exhibition or propagation must be accompanied by permits, except as stated in regulation 7. Consignments offered for shipment without permit will not be refused transportation, but may be forwarded to Seattle or San Francisco and held there at owner's risk and expense until permits are obtained.

7. PARKS EXCEPTED.

Under the provisions of section 6 live animals and birds consigned to the National Zoological Park, Washington, D. C., are not subject to the act. Live animals other than moose (not exceeding 10 in one consignment) and live birds (not exceeding 25 in one consignment) may be shipped *without permit* to the following public zoological parks, if shipped directly to said parks and not to some agent:

Golden Gate Park, San Francisco.
Lincoln Park, Chicago.
Menagerie of Central Park, New York.
New York Zoological Society.
Zoological Society, Philadelphia.

Consignments for these parks which exceed the above-mentioned limits must be accompanied by regular permits in all cases.

8 SHIPMENT.

Hides, skins, heads, horns, trophies, specimens, live game animals, or game birds shipped from Alaska to other ports of the United States or to foreign ports must not be accepted for transportation unless shipped via Seattle, Wash., or San Francisco, Cal., to be there subject to examination by officers of the customs or representatives of this Department.

9. RESERVED RIGHTS OF DEPARTMENT.

The Department expressly reserves the right to restrict the number of each kind of game animal which may be shipped under permit (within the limits fixed by law) whenever deemed necessary by reason of local or relative scarcity of the species, or other causes; to examine at Seattle or San Francisco any or all hides, skins, heads, horns, trophies, specimens, live game animals, or game birds from Alaska, whether shipped as personal baggage or otherwise; to detain, if necessary, at said ports any consignment of game animals or birds or any part thereof not forwarded in conformity with these regulations, and to require the return of the same either to original port of shipment or to the collector of customs at Sitka, Alaska. Owners and masters of vessels will accept all consignments subject to these conditions. In case of return all expenses of reshipment will be paid by the vessel transporting the goods from Alaska, and the master of said vessel must file at Seattle or San Francisco a customs receipt for all goods returned to Alaska.

10. PACKING TROPHIES.

All trophies (including hides, skins, robes, antlers, horns, skulls, and similar specimens not intended for scientific purposes) must be exhibited to an officer of the customs or packed so that they can be readily examined, and the package must bear the name and address of the shipper. Trophies must not be concealed in personal baggage so as to prevent examination, and packages supposed to contain trophies improperly packed may be refused transportation until satisfactory evidence as to contents has been presented. Common carriers are enjoined to make every effort to carry out the spirit of this regulation.

11 SPECIAL MANIFEST REQUIRED.

All consignments of trophies, specimens, or live animals, whether shipped as personal baggage or otherwise, must be declared before an officer of the customs and accompanied by a *special manifest* to be forwarded to the collector of customs at San Francisco, Cal., or the deputy collector of customs at Seattle, Wash. In case the point of shipment is not a regular port of entry, the shipper shall deliver the invoice to the master of the vessel, who shall declare the goods and surrender the invoice to the proper officer of customs at the port of delivery.

12. EXAMINATION OF SHIPMENTS.

Hides, skins, heads, horns, trophies, or specimens arriving at Seattle or San Francisco, not covered by permits or shipped contrary to these regulations, will be held for examination by officers of the customs, promptly reported, and released only upon instructions from the Treasury Department; provided, that all goods not released within sixty (60) days after arrival shall be returned to the port of shipment or to the collector of customs at Sitka (at the expense of the vessel bringing the same) for disposition in accordance with the provisions of section 6 of the act.

13 TRANSPORTATION IN CLOSE SEASON.

Vessels plying in Alaskan waters must not receive for transportation out of Alaska, or for consumption on the voyage, any carcasses of game animals or birds during the close season. Owners and masters of vessels are enjoined to insist upon a strict compliance with this and all other regulations governing shipment.

All previous regulations and all special rulings of the Department in conflict with these regulations are hereby revoked.

JAMES WILSON, *Secretary*.

APPENDIX C.

[PUBLIC—No. 188.]

AN ACT To authorize the appointment of road overseers and to create road districts in the district of Alaska, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it shall be the duty of the commissioner in each precinct in the district of Alaska, on the first Monday in the month of April in each year, to

appoint a road overseer for the precinct in which he resides, and create a road district in the inhabited part of said precinct, which said district shall not include incorporated cities and towns.

To fill all vacancies in the office of road overseer in his precinct.

To cause a record to be made defining the boundaries of said road district.

TERM OF OFFICE AND QUALIFICATION OF ROAD OVERSEERS.

All road overseers shall hold office for one year and until their successors are appointed and qualified.

Every person appointed to the office of road overseer of any road district shall reside in the road district to which he has been appointed, and shall, within thirty days after he shall have been notified of his appointment, take and subscribe to an oath of office obligating himself to the faithful performance of the duties of his office, and shall forthwith cause such oath to be filed in the office of the commissioner of his precinct, and in case any such road overseer shall become nonresident of his road district, his office shall at once become vacant.

Each road overseer shall, before entering upon the duties of his office, execute a bond to the United States in a sum not less than double the amount of money which will probably come into his hands at any time during his term of office, with two or more sureties, the amount and sufficiency of the bond to be approved by the commissioner of the precinct, conditioned for the faithful discharge of the duties of his office, which bond shall be by him forthwith filed in the office of the commissioner and ex officio recorder. The approval of such bond shall be indorsed thereon by the commissioner.

DUTIES OF ROAD OVERSEER.

The duties of road overseer shall be such as may be prescribed by law.

Each road overseer shall keep an accurate account of all money received by virtue of his office and the manner in which the same has been disbursed, and to whom, and shall, on the last Saturday of March in each year, exhibit such account, together with his vouchers, to the commissioner for adjustment and settlement. Such account shall be in writing, verified by affidavit of the overseer that the same is in all respects a full and true account of all money received by him during the full term for which he should make settlement and the amounts expended and the manner in which they were expended.

If any person appointed to the office of road overseer, unless unable from disease or other infirmity to discharge the duties of such office, shall refuse or neglect to serve therein, he shall be liable to a fine of twenty-five dollars; but no person so appointed who shall have served for a term next preceding such appointment shall be liable to such fine for refusing to serve if he shall have given notice in writing of refusal to the commissioner within twenty days after having been notified of his appointment.

Every road overseer who shall, after the expiration of his term of office, neglect or refuse to deliver on demand to his successor in office, after such successor shall have been duly qualified according to law, all moneys, records, books, papers, or other property appertaining to such office shall be liable to a fine of not less than fifty nor more than five hundred dollars.

Road overseers of the different precincts are authorized, and it is made their duty, to warn out all male persons between eighteen and fifty years of age who have resided thirty days in the district of Alaska, who are capable of performing labor on roads or trails, and who are not a precinct charge, to perform two days' work of eight hours each in locating, constructing, or repairing public roads or trails, under the direction of the road overseer within whose precinct they may respectively reside, or furnish a substitute to do the same, or pay the sum of four dollars per day for two days' labor; and said road overseer shall receipt for the same and shall expend it in location, construction, or repairs on the public roads and trails within his precinct; and any moneys so received and not expended shall be paid over to his successor in office, who shall expend the same as above provided.

The overseer of roads and trails in each precinct shall give notice to persons residing in his precinct liable to or charged with a road or trail tax of the time and place and the kind of work expected to be performed on the road or trail, and may direct what implements such persons shall bring with which to perform such work.

Whenever it shall happen, in consequence of sickness or absence from home, or any other cause, that the two days' work aforesaid shall not be performed within the time specified in this act, the overseer shall be authorized to require the performance of such work at any time prior to the first day of October then next ensuing; and in case any person shall neglect or refuse to do the two days' work, or furnish a

substitute, or pay in money the price of two day's labor, as provided in this act, he shall be deemed guilty of a misdemeanor and shall be fined in the sum of ten dollars for each day refusing so to work upon conviction before any justice of the peace of the precinct.

If any person shall appear at the proper time and place as directed by the overseer and neglect or refuse to do a reasonable day's work according to his ability, he shall be liable the same as if he had neglected or refused to appear, or furnish a substitute, or pay the sum of money as provided herein.

Under the direction of the overseer, and at his discretion, the above road tax may be performed by one day's work, together with an able-bodied man, a two-horse team with wagon, or a dog team consisting of not less than five dogs and a sleigh, or a reindeer team of not less than two reindeer and sleigh or cart.

It shall be the duty of each road overseer to receipt to each person who performs labor on the public roads and trails of his precinct under the provisions of this act for the amount of labor so performed, and no person shall be compelled to pay road tax except in one precinct in the district of Alaska during one calendar year.

Each road overseer shall, on or before the first day of April in each year, report to the commissioner of the precinct the names of all persons subject to the two days' road tax for the preceding year, the names of those who have worked out said tax, the names of those who have paid the said tax in money, and the names of those delinquent, and also all moneys received by him from all sources, and how expended, and the account of said road overseer of the work performed by himself, which report shall be approved by said commissioner before any final settlement shall be made with such road overseer.

Each and every road overseer who shall neglect or refuse to perform the several duties enjoined upon him by this act, or who shall, under any pretense whatsoever, give or sign a receipt or certificate for labor performed or money paid, unless the labor shall have been performed or money paid prior to the signing or giving of such receipts or certificates, shall forfeit for every such offense not less than five nor more than fifty dollars, to be recovered by an action before any justice of the peace within the precinct where such overseer may reside, and it is hereby made the duty of every United States attorney or assistant to prosecute all offenses against the provisions of this act not otherwise provided for.

PER DIEM.

Road overseers shall be allowed four dollars per day for all services required by this act and actually performed in their respective precincts, to be retained out of money paid said road overseers from persons paying money or fines in lieu of two days' labor, upon the certified statement of the overseers, approved by the commissioner of the precinct: *Provided*, That no overseer shall receive pay for more than ten days in any one year, and not until he has made the return as provided in the preceding section, in duplicate, one copy to be retained by the commissioner and one copy filed with the clerk of the district court in the division in which the said precinct is situated.

Any oath required to be taken by said overseer, acknowledgment of bond, or the filing or recording of any paper or plat authorized by this act shall be free of cost to said overseer.

Upon application of road overseers it shall be the duty of the clerk of the district court to furnish copies of this act and blank forms of notices warning persons to perform road work, receipts for road work, bond, and oath, and for overseer's report to commissioner, the expense of which shall be paid out of the fund for paying the incidental expenses of the court.

The Attorney-General of the United States is hereby directed to furnish clerks of the district court in the different judicial divisions of Alaska a sufficient number of copies of this act and other road and trail laws that may now be upon the statutes relating to roads and trails in the district of Alaska for use of road overseers in each judicial division.

Approved, April 27, 1904.

APPENDIX D.

AN ACT Supplemental to and amendatory of an act entitled "An act making further provision for a civil government for Alaska, and for other purposes," approved June sixth, nineteen hundred.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Interior shall, in the month of November, nineteen hundred and four, and from time to time thereafter, as in his

judgment may be deemed advisable, advertise for and receive bids for the care and custody of persons legally adjudged insane in the district of Alaska, and thereafter, in behalf of the United States, shall contract, for one or more years, as he may deem best, with a responsible asylum or sanitarium west of the main range of the Rocky Mountains submitting the lowest and best responsible bid for the care and custody of persons legally adjudged insane in said district of Alaska, the cost of advertising for bids, executing the contract, and caring for the insane to be paid, until otherwise provided by law, by the Secretary of the Treasury, out of any money in the Treasury not otherwise appropriated, on accounts and vouchers duly approved by the Secretary of the Interior, and all acts and parts of acts in conflict with these provisions are hereby repealed.

Approved April 28, 1904.

APPENDIX E.

AN ACT to amend and codify the laws relating to municipal corporations in the district of Alaska.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That any community in Alaska having three hundred or more permanent inhabitants may incorporate as a municipal corporation termed a town in the manner hereinafter provided. A petition praying for such incorporation shall first be presented to the judge of the United States district court presiding over the court in the judicial division in which the community seeking incorporation is located, which petition shall be signed by at least sixty male adults, bona fide residents of such community, and shall specify the boundaries and the number of inhabitants of the proposed corporation, and shall also specify the name by which it is to be known, and such other facts as may tend to show good grounds for such incorporation. The judge shall thereupon, by an order, fix the time and place for considering said petition, which time shall not be less than thirty days after the date of such order. A printed or typewritten copy of said order shall be posted in three of the most public places within the limits of the territory proposed to be incorporated at least thirty days prior to the time fixed for considering said petition. At the time and place fixed for considering said petition the judge shall give a reasonable hearing to those who are in favor of and to those who are opposed to the same; and if he is satisfied that it is for the best interest and welfare of the community to be incorporated as a town he shall, by an order, so adjudge; and he may, by the order, change or modify the proposed boundaries. He shall also, by said order, designate the name and the boundaries of the corporation, and the time and place when and where an election shall be held to determine whether the people of the community desire to be incorporated; and he shall also, by said order, appoint three qualified voters to act as judges of such election. A printed or typewritten copy of said order shall be posted at three of the most public places within the limit of the proposed corporation at least thirty days prior to the day of election, and such posting shall be deemed a sufficient notice of such election.

SEC. 2. That every male person twenty-one years of age who is a citizen of the United States or has declared his intention to become such, and who has resided continuously one year next preceding the election in the district of Alaska, and six months next preceding the election within the limits of the proposed corporation, shall be qualified to vote at said or any subsequent municipal election. Said election shall be by printed or written ballot in the following terms, to wit: "For incorporation of the town of (name of proposed corporation)," or "Against incorporation of the town of (name of proposed corporation)."

The qualified electors of the community proposed to be incorporated may also at said election by a separate ballot choose a common council of seven members, who shall be qualified electors of the community. The said judges of election shall, before entering upon the duties of their said office, take an oath in writing to faithfully and impartially discharge the duties of their trust, and they shall duly canvass and compile the vote cast and issue under their hands and seals a certificate in triplicate showing the number of votes cast in favor of incorporation and the number of votes cast against incorporation. One of said triplicate certificates, together with all the ballots cast and the oaths of the judges of election, shall immediately be filed with the clerk of the district court in the division in which the community proposed to be incorporated is situate, another of said certificates shall be filed with the secretary of the district of Alaska, and the third of said certificates shall be filed with the commissioner of the

precinct in which said community is located. If it shall appear from the said triplicate certificate of election filed with the clerk of the district court as aforesaid that two-thirds or more of the votes cast at said election were in favor of incorporation and that the provisions of law relating to incorporation have been substantially complied with, then the district judge shall, by an order in writing entered in the records of the court, duly adjudge and declare that the community in which such election has been held is and shall be deemed to be a municipal corporation under the name of "The town of (here insert name) in the district of Alaska," and the same shall from thenceforth be deemed a municipal corporation possessed of the powers and privileges hereinafter prescribed, and such other powers as may be given by law.

SEC. 3. That the said judges of election shall also canvass the votes given at said election for members of the common council, and shall declare the seven candidates who shall have received the greatest number of votes for such office duly elected, and shall issue and deliver to them certificates of their election. In case the community in which said election has been held becomes incorporated as aforesaid, the members of the common council chosen as aforesaid, as well as the members of such council chosen at subsequent elections, shall, before entering upon the duties of their office, severally take an oath in writing to honestly and faithfully discharge the duties of their trust, which oaths shall be filed with the clerk of the town. An annual election shall be held each and every year, on the first Tuesday of April, in every incorporated town in the district of Alaska for the election of members of the common council. The members of the council chosen at the first election shall hold their office until the next annual election and until their successors are elected and qualified, and the members of the council chosen at subsequent elections shall hold their office for the term of one year and until their successors are elected and qualified.

SEC. 4. That the said common council shall have and exercise the following powers:

First. To adopt rules and by-laws for their proceedings, and to elect one of their number president of the council, who shall also be ex officio mayor of the town, and who, when chosen, shall continue to hold the position of president and ex officio mayor during the term for which the council was elected, and who shall take care that the ordinances and resolves of the council be faithfully executed.

Second. To appoint a clerk, a treasurer, an assessor, a municipal magistrate, a municipal attorney, a chief of police, and such other officials or employees as may be necessary, but none of such officers or employees shall be appointed for a longer term than one year.

Third. To make suitable provision for municipal and other elections and to appoint three judges and two clerks of election for each polling place in the town.

Fourth. To provide for the location, construction, and maintenance of the necessary streets, alleys, crossings, sidewalks, sewers, and wharves. If such street, alley, sidewalk, or sewer, or parts thereof, is located and constructed upon the petition of the owners of two-thirds in value of the property abutting upon and affected by such improvement, then two-thirds of the cost of the same may, in the discretion of the council, be collected by the assessment and levy of a tax against the abutting property, and such tax shall be a lien upon the same and may be collected as other real-estate taxes are collected.

Fifth. To provide for the location and construction, for a limited distance and to a limited extent, of trails and wagon roads outside of the limits of the town, but leading to and from the same, where such roads and trails are necessary for promoting the welfare and prosperity of the town, but no money shall be expended for such purpose except upon the unanimous vote of the entire council, unless the qualified voters of the town have, at an annual election by ballot, by a two-thirds vote, voted in favor of such expenditure.

Sixth. To provide for fire protection, water supply, lights, wharfage, public health, and police protection, and the relief of the destitute and indigent.

Seventh. To assess, levy, and collect a poll tax of not less than two dollars nor more than four dollars per year on all male residents over twenty-one and under fifty years of age who are not active members, serving without pay, of a volunteer fire company in the town. Such tax shall be a lien upon and may be collected from any real or personal property of the person against whom the tax is levied, except wearing apparel and household furniture less than three hundred dollars in value.

Eighth. To levy a tax of not more than two dollars per year upon each dog against the person who keeps the same, and to provide for the impounding or killing of the dog in case the tax is not paid or in case the dog is vicious or dangerous to life or health.

Ninth. To assess, levy, and collect a general tax for school and municipal purposes, not to exceed two per centum of the assessed valuation, upon all real and personal property, and to declare the same a lien upon such property and to enforce the col-

jection of such lien by foreclosure, levy, distress, and sale: *Provided, however,* That all property belonging to the municipality, all property used exclusively for religious, educational, and charitable purposes, and the household furniture of the head of a family or a householder, not exceeding two hundred dollars in value, shall be exempt from such tax: *Provided further,* That the laws exempting certain property from levy and sale on execution shall not apply to said taxes or the collection of the same.

Tenth. To prohibit drunkenness, gambling, houses or places of ill fame, disorderly conduct, or conduct endangering the public peace, public health, or public safety, to define such offenses, and to prescribe the punishment therefor, but such punishment shall not exceed in any case a fine of one hundred dollars or imprisonment in the municipal jail not exceeding ninety days, or both, in the discretion of the court, together with the costs of prosecution. The costs of such imprisonment shall be borne by the municipality and not by the United States. All fines and costs imposed and collected for violation of municipal ordinances shall belong to the municipality and be paid over to its treasurer. The municipal magistrate shall have jurisdiction of all actions for violation of municipal ordinances, and appeals shall lie from his judgments to the district court in the same manner as appeals from the judgments of ex officio justices of the peace.

Eleventh. To make due provision for the maintenance of a municipal jail and to provide the same with a keeper.

Twelfth. To establish one or more school districts, to provide the same with suitable schoolhouses, and to provide the necessary funds for the maintenance of schools; but such school districts and schools, when established, shall be under the supervision and control of a school board of three members, consisting of a director, a treasurer, and a clerk, to be elected annually by the vote of all adults who are citizens of the United States or who have declared their intention to become such, and who are residents of the school district. The members of said board shall hold their office for the term of one year, and until their successors are elected and qualified; and they shall each, before entering upon the duties of their office, take an oath, in writing, to honestly and faithfully discharge the duties of their trust. All money available for school purposes, except for the construction and equipment of schoolhouses and the acquisition of sites for the same, shall be transferred to the treasurer of said board, shall be expended under the direction of said board, and the treasurer of said board shall be the custodian of said money, and he shall, before entering upon the duties of his office, give his bond, with sufficient sureties, to the school district in such sum as the common council may direct and subject to its approval, but not less than twice the amount that may come into his hands as treasurer, conditioned that he will honestly and faithfully disburse and account for all money that may come into his hands as such treasurer. The said board shall have the power to hire and employ the necessary teachers, to provide for lighting and heating the schoolhouse, and in general to do and perform everything necessary for the due maintenance of a proper school.

Thirteenth. To take such action by ordinance, resolution, or otherwise, as may be necessary to protect and preserve the lives, the health, the safety, and the well-being of the people in the town and to publish all ordinances.

SEC. 5. That the common council may exercise their powers by ordinance or resolution, but no ordinance or resolution shall be valid unless adopted by a vote of four members of the council at a meeting where not less than five members are present. The council shall have no authority to issue bonds or to incur any bonded indebtedness, nor shall they have authority to incur a greater indebtedness or liability of any kind in any year than the current revenues of the municipality for that year.

SEC. 6. That the clerk appointed by the council shall attend its meetings, keep a full record of all its proceedings and of all disbursements of public money, and he shall also file and duly keep all the records and public papers of the town, and he shall to all intents and purposes be deemed to be the clerk and bookkeeper of the town and shall officiate as such. The treasurer appointed by the council shall be the custodian of all the moneys of the town: *Provided,* That said treasurer shall pay over to the treasurer of the school district all moneys available for the maintenance of schools. He shall keep an itemized, full, and correct account of all moneys received and disbursed, and he shall pay out no money except upon an order signed by the ex officio mayor and countersigned by the clerk and specifying the object and purpose of the payment, and no such order shall be issued except upon vote of four members of the council at a meeting in which five members are present. He shall, before entering upon the duties of his office, give his bond to the town, with sufficient sureties to be approved by the council, in such sum as the council may direct, not less, however, than twice the amount of public money that may come into his hands as treasurer during his term, which bond shall be conditioned that he will

faithfully and honestly collect, keep, and disburse all the money belonging to the town, which bond shall be filed with and kept by the clerk of the town. The assessor appointed by the council shall once each year, at such time as the council may direct, duly list and assess all the taxable property of the town at its just and fair value. He shall file such list and assessment as soon as completed with the clerk of the town, and shall serve a notice of the filing of the same upon each person residing in the town whose property has been assessed. The council may review and revise the assessment, and may, upon proper evidence and conformable to justice, increase or diminish the same in individual cases, and when so revised and reviewed, and finally approved by the council, the same shall be deemed to be the true basis for the levy and assessment of taxes. The municipal attorney shall be the legal advisor of the council and the other town officials in reference to their official duties, and he shall represent the town as attorney in civil and criminal prosecutions in which the town is interested. All officers appointed by the council shall, before entering upon the duties of their office, severally take an oath, in writing, to honestly, faithfully, and impartially perform the duties of their office, which oath shall be filed with the clerk of the town. The council shall, at the beginning of the term of each officer appointed by them, by ordinance fix his compensation for the term, which compensation, when so fixed, shall be neither increased nor diminished during the term, nor shall said officers be entitled to receive, in any form or shape, any other or additional compensation. Any officer of the town, whether elective or appointive, may be removed from office for malfeasance, misfeasance, or nonfeasance in office, by the district court, in proceedings initiated upon the complaint of a taxpayer, and in which the officer complained of shall have full opportunity to appear and defend himself.

SEC. 7. That all license moneys collected by the clerk of the district court from any person for any business, trade, or occupation carried on within the limits of any incorporated town in the district of Alaska, pursuant to the provisions of an act entitled "An act to define and punish crimes in the district of Alaska and to provide a code of criminal procedure for said district," approved March third, eighteen hundred and ninety-nine, and all acts or parts of acts amendatory thereof shall by said clerk be paid over to the treasurer of such town, to be used for school and municipal purposes within the town. The clerk shall take a receipt for such money in triplicate, one of which receipts shall be filed with the Secretary of the Treasury, one with the Attorney-General of the United States, and one shall be retained by the clerk.

SEC. 8. That all acts and parts of acts inconsistent with this act are, to the extent of such inconsistency, hereby repealed; and the provisions of this act shall apply to and govern all municipal corporations heretofore created in the district of Alaska.

Approved, April 28, 1904.

APPENDIX F.

[PUBLIC—No. 204.]

AN ACT to amend an act entitled "An act to extend the coal-land laws to the district of Alaska," approved June sixth, nineteen hundred.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That any person or association of persons qualified to make entry under the coal-land laws of the United States, who shall have opened or improved a coal mine or coal mines on any of the unsurveyed public lands of the United States in the district of Alaska, may locate the lands upon which such mine or mines are situated, in rectangular tracts containing forty, eighty, or one hundred and sixty acres, with north and south boundary lines run according to the true meridian, by marking the four corners thereof with permanent monuments, so that the boundaries thereof may be readily and easily traced. And all such locators shall, within one year from the passage of this act, or within one year from making such location, file for record in the recording district, and with the register and receiver of the land district in which the lands are located or situated, a notice containing the name or names of the locator or locators, the date of the location, the description of the lands located, and a reference to such natural objects or permanent monuments as will readily identify the same.

SEC. 2. That such locator or locators, or their assigns, who are citizens of the United States, shall receive a patent to the lands located by presenting, at any time within

three years from the date of such notice, to the register and receiver of the land district in which the lands so located are situated, an application therefor, accompanied by a certified copy of a plat of survey and field notes thereof, made by a United States deputy surveyor or a United States mineral surveyor, duly approved by the surveyor-general for the district of Alaska, and a payment of the sum of ten dollars per acre for the lands applied for; but no such application shall be allowed until after the applicant has caused a notice of the presentation thereof, embracing a description of the lands, to have been published in a newspaper in the district of Alaska published nearest the location of the premises for a period of sixty days, and shall have caused copies of such notice, together with a certified copy of the official plat of survey, to have been kept posted in a conspicuous place upon the land applied for and in the land office for the district in which the lands are located for a like period, and until after he shall have furnished proof of such publication and posting, and such other proof as is required by the coal-land laws: *Provided*, That nothing herein contained shall be so construed as to authorize entries to be made or title to be acquired to the shore of any navigable waters within said district.

Sec. 3. That during such period of posting and publication, or within six months thereafter, any person or association of persons having or asserting any adverse interest or claim to the tract of land or any part thereof sought to be purchased shall file in the land office where such application is pending, under oath, an adverse claim, setting forth the nature and extent thereof, and such adverse claimant shall, within sixty days after the filing of such adverse claim, begin an action to quiet title in a court of competent jurisdiction within the district of Alaska, and thereafter no patent shall issue for such claim until the final adjudication of the rights of the parties, and such patent shall then be issued in conformity with the final decree of such court therein.

Sec. 4. That all the provisions of the coal-land laws of the United States not in conflict with the provisions of this act shall continue and be in full force in the district of Alaska.

Approved, April 28, 1904.

DIGEST OF THE COAL-LAND ACT, APPROVED APRIL 28, 1904.

Section 1 of said act provides, among other things:

"That any person or association of persons qualified to make entry under the coal-land laws of the United States, who shall have opened or improved a coal mine or coal mines on any of the unsurveyed public lands of the United States in the district of Alaska, may locate the lands upon which such mine or mines are situated, in rectangular tracts containing forty, eighty, or one hundred and sixty acres, with north and south boundary lines run according to the true meridian by marking the four corners thereof with permanent monuments, so that the boundaries thereof may be readily and easily traced."

Qualifications.—Every person above the age of 21 years, who is a citizen of the United States, or has declared his intention to become such, or any association of persons severally qualified as above, may make entry of coal land under this act.

Quantity.—The law is construed by this office to mean that not more than 160 acres can be entered under one application by one person or association of persons.

Form of tract.—The law requires that the tracts sought to be entered be rectangular in form, which is construed to mean that the boundary lines of each entry must be run in cardinal directions, i. e., due north and south and east and west lines by reference to a true meridian (not magnetic) with the exception of meander lines on meanderable streams and navigable waters forming a part of the boundary lines of a location. The corners of the tract must be marked by monuments.

Monuments at corners.—The permanent monuments to be placed at each corner may consist of—

First. A stone at least 24 inches long, set 12 inches in the ground, with a conical mound of stone $1\frac{1}{2}$ feet high, 2 feet base alongside.

Second. A post at least 3 feet long by 4 inches square, set 18 inches in the ground and surrounded by a substantial mound of stone or earth.

Third. A rock in place; and wherever possible the identity of all corners should be perpetuated by taking courses and distances to bearing trees, rocks, or other objects, permanent objects to be selected for bearings wherever possible.

Recording.—Within one year from the passage of this act, namely, April 28, 1904, or within one year from making the location, a record of the location must be filed for record in the recording district and with the register and receiver of the land

district in which the claim is located. This record must contain the name or names of the locator or locators, date of the location, the description of the land located, and a reference to such natural objects or permanent monuments as will readily identify the same.

Time allowed in which to make entry.—The locator or his assigns is allowed three years from the date of filing the notice with the recorder and register and receiver within which to file an application with the local land officers for a patent for the land claimed. It will thus be seen that persons or associations of persons claiming coal lands in the district of Alaska at the passage of the act have four years from location within which to present their applications to purchase the same, and persons or associations of persons locating thereafter have the same period of time within which they may apply for patent. Patents may be issued to assigns of the locators, provided they are citizens of the United States.

Penalty for failure to record notice of location.—Persons or associations of persons who fail to record their notices within the prescribed time or fail to file application for patent within the time hereinbefore specified will be considered as having forfeited their rights, providing a valid adverse right has intervened, and parties who file after the time prescribed do so at their own risk.

Plat and field notes to be filed with application for patent.—With the application for patent the claimant must file a certified copy of the plat of survey and field notes thereof made by a United States deputy surveyor or a United States deputy mineral surveyor, duly approved by the surveyor-general for the district of Alaska. The claimant will have the survey made at his own expense, and may procure the making of it by a duly appointed and qualified United States deputy surveyor or United States deputy mineral surveyor without first making application to the surveyor-general therefor, but the survey when made must be submitted to and approved by him.

Survey, how made.—The survey must be made in strict conformity with or be embraced within the lines of the location as recorded in the recording district, and must be made in accordance with the rules laid down for the survey of mining claims.

Purchase price.—The sum of \$10 per acre is the payment required for entry of coal lands under this act.

Shore of navigable waters.—The term "shore" appearing in the proviso to the second section of the act, which is as follows, "That nothing herein contained shall be so construed as to authorize entries to be made or title to be acquired to the shore of any navigable waters within said district," is defined to mean the land lying between high and low water marks of any navigable waters within this district.

Proceedings for entry.—The proceedings for entry in registers and receivers' office are similar to those required under the provisions of law relating to entry of mining claims.

APPENDIX G.

AN ACT for the relief of the Western Alaska Construction Company's Railroad.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the time of the Western Alaska Construction Company to comply with the provisions of sections four and five of chapter two hundred and ninety-nine of the laws of the United States entitled "An act extending the homestead laws and providing for the right of way for railroads in the district of Alaska, and for other purposes," approved May fourteenth, eighteen hundred and ninety-eight, in acquiring and completing its railroad now under construction in Alaska, is hereby extended as follows:

First. The time to file the map and profile of definite location of its first section of at least twenty miles with the register of the land office in the district of Alaska, as provided in said sections four and five, is hereby extended to and including the thirty-first of December, nineteen hundred and four.

Second. The time to complete the first section of at least twenty miles of its railroad, as provided in said section five, is hereby extended to and including within one year after the filing and approval of the definite location of said section of said railroad as in said chapter and by this act is provided; and such railroad company shall be entitled to all the benefits conferred upon it by the provisions of such act upon its due compliance with all the provisions thereof, excepting only the provisions thereof relating to the filing of the map and profile of definite location of its first section of not less than twenty miles of its road within twelve months after filing

with the Secretary of the Interior a preliminary actual survey and plat of its proposed route, as prescribed in said sections four and five of said act, and the provisions thereof relating to the completion of the said first section of its road within one year, as originally provided in section five of said act: *Provided*, That such railroad company shall file with the proper register of the land office for the district of Alaska a map and profile of the first section of its road of at least twenty miles on or before December thirty-first, nineteen hundred and four, and shall complete such section of its said road within one year after such definite location has been approved by the Secretary of the Interior, as provided in said section five of said act.

Approved, April 9, 1904.

APPENDIX H.

JOINT RESOLUTION Requesting the President of the United States to negotiate and, if possible, conclude negotiations with the Government of Great Britain for a review and a revision of the rules and regulations which now govern the taking of fur seals in the open waters of the North Pacific Ocean and Bering Sea, and so forth.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the President be, and he is hereby, requested to negotiate and, if possible, conclude negotiations with the Government of Great Britain for a review and revision of the rules and regulations which now govern the taking of fur seals in the open waters of the North Pacific Ocean and Bering Sea pursuant to the treaty articles of the award of the Bering Sea Tribunal of Arbitration made at Paris August sixteenth, eighteen hundred and ninety-three; said review to determine what revision of these rules and regulations shall be made, if any can be devised and agreed upon, which will restore and preserve the fur-seal industry upon the Seal Islands of Alaska, and abate the killing of nursing mother seals on the high seas now permitted and conducted.

SEC. 2. That the President be, and he is hereby, requested to negotiate and, if possible, conclude negotiations with the Governments of Russia and Japan and other maritime nations to the end of securing their adherence to and a common agreement with the terms of any satisfactory revision of the rules and regulations specified in section one of this resolution which may be agreed upon by the Governments of Great Britain and the United States.

SEC. 3. That all expenses incident to said review, investigation, acquisition of authentic data, and the preparation of expert reports of the case of the United States, ordered and approved by the President, shall be paid by the Secretary of the Treasury out of any moneys in the Treasury of the United States not otherwise appropriated, and which amounts are hereby appropriated.

Approved, April 8, 1904.

APPENDIX I.

COMMERCE OF ALASKA.

Shipments of domestic merchandise from the United States to Alaska.

Articles.	Twelve months ending June, 1904.	
	Quantities.	Values.
Agricultural implements		\$1,624
Aluminum, and manufactures of		66
Animals:		
Cattle.....number.....	1,014	50,300
Hogs.....do.....	833	7,968
Horses.....do.....	688	81,702
Mules.....do.....	30	2,775
Sheep.....do.....	11,141	37,764
All other.....do.....		10,391
Total.....		190,900

Shipments of domestic merchandise from the United States to Alaska—Continued.

Articles.	Twelve months ending June, 1904.	
	Quantities.	Values.
Art works, paintings, and statuary		\$787
Bark, and extracts of, for tanning		1, 220
Blacking:		
Stove polish		157
All other		468
Bones, hoofs, horns, and horn tips, etc		1
Books, maps, engravings, etchings, and other printed matter		87, 851
Brass, and manufactures of		4, 512
Breadstuffs:		
Barley	bushels.. 5, 726	3, 322
Bread and biscuit	pounds.. 743, 344	45, 326
Buckwheat	bushels.. 23	33
Corn	do.. 2, 101	1, 626
Corn meal	barrels.. 1, 554	6, 086
Oats	bushels.. 176, 861	73, 891
Oatmeal	pounds.. 11, 754	350
Rye	bushels.. 9	9
Rye flour	barrels.. 50	176
Wheat	bushels.. 3, 741	3, 286
Wheat flour	barrels.. 40, 711	175, 648
Preparations of, for table food		58, 014
All other, for animal feed—		
Bran, middlings, and mill feed	tons.. 724	15, 024
All other		2, 947
Total		385, 733
Bricks:		
Building	M.. 1, 586	15, 559
Fire		4, 094
Broom corn		242
Brooms and brushes		7, 933
Candles	pounds.. 205, 481	21, 269
Cars, carriages, other vehicles, and parts of:		
Cars, passenger and freight, and parts of—		
For steam railways		19, 808
For other railways		8, 892
Cycles, and parts of		1, 661
Wheelbarrows, push carts, and hand trucks		2, 080
All other carriages, and parts of		11, 851
Total		44, 292
Celluloid, and manufactures of		11
Cement	barrels.. 5, 021	12, 162
Chemicals, drugs, dyes, and medicines:		
Acids		8, 102
Baking powder	pounds.. 55, 867	18, 280
Copper, sulphate of	do.. 278	18
Dyes and dyestuffs		1
Medicines, patent and proprietary		19, 216
Roots, herbs, and barks, not elsewhere specified		903
Washing powder and fluid	pounds.. 23, 318	1, 640
All other		88, 763
Total		137, 583
Cider	gallons..	1, 037
Clocks and watches:		
Clocks, and parts of		2, 891
Watches, and parts of		643
Coal and coke:		
Coal—		
Anthracite	tons..	
Bituminous	do.. 41, 704	193, 740
Coke	do.. 392	2, 251
Cocoa, ground or prepared, and chocolate		6, 085
Coffee:		
Green or raw	pounds.. 3, 659	812
Roasted or prepared	352, 432	73, 854
Copper, manufactures of:		
Ingots, bars, plates, and old	pounds.. 7, 473	2, 134
All other manufactures of		3, 934
Cork, manufactures of		1, 763

Shipments of domestic merchandise from the United States to Alaska—Continued.

Articles.	Twelve months ending June, 1904.	
	Quantities.	Values.
Cotton, and manufactures of:		
Unmanufactured, linters	pounds..	
Cloths—		
Colored	yards..	\$5, 636
Uncolored	do..	2, 762
Wearing apparel		104, 560
Waste, cotton mill	pounds..	1, 632
Yarn		5, 733
All other		133, 646
Total manufactures of		253, 969
Earthen, stone, and china ware:		
Earthen and stone ware		15, 673
China ware		12, 375
Eggs	dozens..	673, 351
Feathers		672
Fertilizers	tons..	4 99
Fibers, vegetable, and textile grasses, manufactures of:		
Bags		4, 113
Cordage	pounds..	432, 669
Twine		13, 192
All other		70, 355
Total		145, 603
Fish:		
Fresh, other than salmon	pounds..	40 4
Dried, smoked, or cured—		
Cod, haddock, hake, and pollock	do..	29, 938
Herring	do..	636
All other	do..	22, 192
Pickled mackerel	barrels..	144 2, 008
Salmon—		
Canned	pounds..	28, 756
All other fresh and cured		3, 103
Canned fish, other than salmon and shellfish		12, 526
Caviare		161
Shellfish:		
Oysters		21, 498
All other		6, 143
All other fish and fish products		8, 005
Total		59, 343
Fruits and nuts:		
Apples, dried	pounds..	81, 939
Apples, green or ripe	barrels..	4, 311
Apricots, dried	pounds..	30, 060
Oranges		16, 273
Prunes	pounds..	91, 988
Raisins	do..	66, 652
All other, green, ripe, or dried		74, 883
Fruits, preserved—		
Canned		95, 266
All other		8, 784
Nuts		9, 051
Total		240, 113
Furniture, of metal		2, 689
Furs and fur skins		10, 629
Glass and glassware:		
Window glass		7, 654
All other		30, 649
Total		38, 303
Glucose or grape sugar	pounds..	3, 760
Glue	do..	559
Grease, grease scraps, and all soap stock		1, 065
Gunpowder and other explosives:		
Gunpowder	pounds..	1, 205, 053
All other explosives		144, 545
Hair, and manufactures of		178, 450
Hay	tons..	5, 622 120, 084

Shipments of domestic merchandise from the United States to Alaska—Continued.

Articles.	Twelve months ending June, 1904.	
	Quantities.	Values.
Hides and skins, other than furs.....pounds..	57	\$6
Honey.....		2,446
Hops.....pounds..	7,273	1,962
India rubber, manufactures of:		
Belting, hose, and packing.....		37,730
Boots and shoes.....pairs..	37,751	85,367
All other.....		15,739
Total.....		138,836
India rubber, scrap and old.....		66
Ink:		
Printer's.....		230
All other.....		726
Instruments and apparatus for scientific purposes:		
Electrical appliances, including telegraph and telephone instruments.....		50,702
All other.....		14,114
Iron and steel, manufactures of:		
Pig iron.....tons..	45	1,217
Bar iron.....pounds..	518,460	15,519
Bars or rods of steel—		
Wire rods.....do....	23,354	1,264
All other.....	104,228	4,717
Hoop, band, and scroll.....	2,190	74
Rails for railways—		
Iron.....tons..	37	1,151
Steel.....do....	3,959	106,247
Sheets and plates—		
Iron.....pounds..	309,691	12,685
Steel.....do....	183,403	10,511
Tin plates, terne plates, and taggers tin.....do....	14,977,840	650,560
Structural iron and steel.....tons..	421	28,425
Wire.....pounds..	147,921	4,777
Builder's hardware, saws, and tools—		
Locks, hinges, and other builder's hardware.....		68,710
Saws.....		6,012
Tools, not elsewhere specified.....		33,859
Car wheels.....number..	280	1,404
Castings, not elsewhere specified.....		44,618
Cutlery—		
Table.....		405
All other.....		3,263
Firearms.....		17,040
Machinery, machines, and parts of:		
Cash registers.....number..	59	7,429
Electrical machinery.....		22,351
Laundry machinery.....		97
Metal-working machinery.....		112,924
Printing press, and parts of.....		552
Pumps and pumping machinery.....		34,980
Sewing machines, and parts of.....		5,383
Shoe machinery.....		40
Steam engines, and parts of—		
Fire.....number..	2	531
Locomotive.....do....	1	2,600
Stationary.....do....	59	39,410
Boilers, and parts of engines.....		73,009
Typewriting machines, and parts of.....		5,011
Wood-working machinery.....		3,848
All other.....		399,040
Nails and spikes—		
Cut.....pounds..	88,855	2,710
Wire.....do....	1,170,169	34,216
All other, including tacks.....do....	110,680	3,219
Pipes and fittings.....		140,437
Safes.....number..	37	5,421
Scales and balances.....		2,043
Stoves, ranges, and parts of.....		49,943
All other manufactures of.....		168,399
Total, not including iron ore.....		2,126,051
Jewelry, and manufactures of gold and silver:		
Jewelry.....		17,177
All other manufactures of gold and silver.....		1,217
Lamps, chandeliers, and all other devices for illuminating purposes.....		6,614

Shipments of domestic merchandise from the United States to Alaska—Continued.

Articles.	Twelve months ending June, 1904.	
	Quantities.	Values.
Lead, and manufactures of:		
Pigs, bar and old.....pounds..	896,999	\$44,787
Type.....do.....	998	278
All other manufactures of.....		13,749
Total.....		58,764
Leather, and manufactures of:		
Leather—		
Sole leather.....pounds..	2,967	1,067
Upper leather—kid, glazed.....		147
All other leather.....		2,701
Total leather.....		3,915
Manufactures of:		
Boots and shoes.....pairs..	55,675	114,502
Harness and saddles.....		15,540
All other.....		13,100
Total manufactures of.....		143,142
Total leather, and manufactures of.....		147,057
Lime.....barrels..	2,510	2,570
Malt.....bushels..	8,930	7,189
Marble and stone, manufactures of:		
Unmanufactured.....		448
Manufactures of—		
Roofing slate.....		22
All other.....		4,443
Matches.....		3,804
Musical instruments, and parts of:		
Organs.....number..	22	1,386
Pianofortes.....	51	12,861
Pianolas, and other piano players.....	1	309
All other, and parts of.....		6,212
Total.....		20,768
Naval stores:		
Rosin.....barrels..	28	111
Tar.....	379	1,892
Turpentine and pitch.....	128	624
Turpentine, spirits of.....gallons..	43,616	26,891
Total.....		29,518
Nursery stock.....		405
Oil cake and oil-cake meal: Corn.....pounds..	3,960	49
Oilcloths:		
For floors.....		4,469
All other.....		11,104
Total.....		15,573
Oils:		
Animal—		
Fish.....gallons..	125	80
Lard.....do.....	4,210	2,341
Whale.....	31	19
All other.....	115	48
Total animal.....	4,481	2,488
Mineral—		
Crude, including all natural oils, without regard to gravity, gallons.....	2,016,400	71,823
Refined or manufactured—		
Naphthas, including all lighter products of distillation...gallons..	316,434	61,868
Illuminating oil.....do.....	475,138	91,919
Lubricating and heavy paraffin oil.....do.....	33,124	11,657
Residuum, including tar, and all other, from which the light bodies have been distilled.....barrels..	16	76
Total mineral, refined.....		165,520
Total mineral oil.....		237,343

Shipments of domestic merchandise from the United States to Alaska—Continued.

Articles.	Twelve months ending June, 1904.	
	Quantities.	Values.
Oils—Continued.		
Vegetable:		
Cotton seed.....gallons..	167	\$89
Linseed.....do.....	12,914	6,873
Volatile or essential—all other.....		1,957
All other vegetable.....		2,448
Total vegetable.....		11,367
Paints, pigments, and colors:		
Carbon black, gas black, and lampblack.....		373
All other.....		30,204
Paper, and manufactures of:		
Paper hangings.....		10,510
Playing cards.....		3,790
Printing papers.....pounds..	20,325	577
Writing papers and envelopes.....		15,718
All other.....		53,278
Total.....		83,873
Pencils, lead and slate.....		6
Perfumery and cosmetics.....		912
Plated ware.....		1,020
Provisions, comprising meat and dairy products:		
Meat products—		
Beef products—		
Beef, canned.....pounds..	331,929	34,350
Beef, fresh.....do.....	2,335,942	199,467
Beef, salted or pickled.....do.....	325,885	23,848
Beef, other cured.....do.....	145,997	14,871
Tallow.....	14,812	712
Hog products—		
Bacon.....pounds..	741,796	107,147
Hams.....do.....	658,633	91,756
Pork, canned.....do.....	11,661	1,667
Pork, fresh.....do.....	199,409	19,208
Pork, salted or pickled.....do.....	202,981	21,333
Lard.....do.....	457,555	43,954
Lard compounds and substitutes for (cottolene, lardine, etc.).....do.....	45,023	3,967
Mutton.....	364,191	29,469
Oleomargarin, imitation butter.....pounds..	9,080	1,300
Poultry and game.....		27,239
Sausage and sausage meats.....pounds..	127,179	12,895
Sausage casings.....		49
All other meat products—		
Canned.....		45,777
All other.....		31,526
Dairy products—		
Butter.....pounds..	1,145,119	270,187
Cheese.....do.....	179,877	25,574
Milk.....		158,975
Total.....		1,165,271
Quicksilver.....pounds..	8,142	4,423
Rice.....do.....	712,881	32,285
Salt.....do.....	8,982,777	35,111
Seeds:		
Clover.....do.....	100	17
Other grass seeds.....		301
All other.....		1,182
Shells.....		1,357
Silk, manufactures of.....		5,861
Soap:		
Toilet or fancy.....		4,559
All other.....pounds..	341,675	17,098
Spirits, wines, and malt liquors:		
Malt liquors—		
In bottles.....dozen quarts..	51,246	82,194
In other coverings.....gallons..	154,418	43,759
Total malt liquors.....		125,953

Shipments of domestic merchandise from the United States to Alaska—Continued.

Articles.	Twelve months ending June, 1904.	
	Quantities.	Values.
Spirits, distilled:		
Alcohol—		
Wood.....proof gallons..	524	\$499
All other (including pure, neutral, or cologne spirits).....do...	822	2, 026
Brandy.....do.....	3, 641	9, 129
Whisky—		
Bourbon.....do.....	35, 395	87, 292
Rye.....do.....	13, 758	37, 314
All other.....do.....	42, 825	111, 808
Total spirits, distilled.....	100, 129	254, 352
Wines—		
In bottles.....dozen quarts..	1, 972	12, 908
In other coverings.....gallons..	25, 993	18, 603
Total wines.....		31, 511
Total spirits, wines, and malt liquors.....		411, 816
Starch.....pounds..	28, 047	1, 794
Straw and plain leaf, manufactures of.....		1, 998
Sugar, molasses, and confectionery:		
Molasses.....gallons..	2, 098	1, 206
Sirup.....do.....	30, 344	21, 341
Sugar, brown.....pounds..	47, 350	2, 324
Sugar, refined.....do.....	2, 866, 787	152, 914
Total sugar and molasses.....		177, 785
Candy and confectionery.....		34, 130
Tin, manufactures of.....		618, 465
Tobacco and manufactures of:		
Unmanufactured leaf.....pounds..	9, 321	3, 013
Manufactures of—		
Cigars.....M..	4, 343	231, 257
Cigarettes.....M..	924	3, 996
Plug.....pounds..	147, 307	65, 003
All other.....		48, 077
Total manufactures of.....		348, 333
Toys.....		4, 113
Trunks, valises, and traveling bags.....		3, 138
Varnish.....gallons..	13, 721	5, 865
Vegetables:		
Beans and pease.....bushels..	9, 465	18, 001
Onions.....do.....	11, 470	12, 330
Potatoes.....do.....	119, 381	97, 119
Vegetables, canned.....		112, 603
All other, including pickles and sauces.....		93, 497
Total.....		333, 550
Vinegar.....	13, 449	2, 201
Wood, and manufactures of:		
Timber and unmanufactured wood—		
Sawed.....M feet..	2, 894	57, 212
Logs, and other.....		10, 560
Lumber—		
Boards, deals, and planks.....M feet..	15, 904	181, 144
Shingles.....M..	8, 540	14, 480
Shooks, box.....		136, 496
Staves.....number..	50, 120	852
Heading.....		770
All other.....		15, 671
Total unmanufactured.....		417, 185
Manufactures of:		
Doors, sash, and blinds.....		22, 372
Furniture, not elsewhere specified.....		58, 247

Shipments of domestic merchandise from the United States to Alaska—Continued.

Articles.	Twelve months ending June, 1904.	
	Quantities.	Values.
Wood, and manufactures of—Continued.		
Manufactures of—Continued.		
Hogsheads and barrels, empty		\$38, 370
Trimmings, moldings, and other house finishings		3, 947
Wooden ware		1, 516
Wood pulp	pounds. 10, 000	125
All other		115, 804
Total manufactures of		240, 381
Total wood, and manufactures of		657, 566
Wool, manufactures of:		
Wool, raw	pounds. 204	40
Carpets	yards. 15, 032	12, 196
Dress goods	do. 7, 024	3, 519
Flannels and blankets		8, 670
Wearing apparel		289, 432
All other manufactures of		55, 184
Total manufactures of		369, 041
Zinc, manufactures of:		
Pigs, bars, plates, and sheets	pounds. 31, 649	2, 007
All other manufactures of		1, 661
All other articles		14, 048
Total value of shipments of domestic merchandise		9, 869, 721
Carried in American steam vessels		7, 284, 193
Carried in American sailing vessels		2, 585, 528

CUSTOMS DISTRICTS FROM WHICH SHIPPED.

	Values.
Oregon, Oreg	\$87, 905
Puget Sound, Wash.	6, 736, 383
San Francisco, Cal.	2, 997, 299
Willamette, Oreg	48, 134

Shipments of foreign merchandise from the United States to Alaska.

Articles.	Twelve months ending June, 1904.	
	Quantities.	Values.
FREE.		
Coffee	pounds. 3, 607	\$530
Tea	do. 57, 072	11, 880
Tin in bars, blocks, pigs, or grain or granulated	do. 610, 630	196, 470
All other free articles		230
Total free articles		209, 110
DUTIABLE.		
Cement	pounds. 277, 500	1, 722
Chemicals, drugs, and dyes:		
Soda ash	do. 6, 653	101
All other		487
Coal, bituminous	tons. 3, 324	23, 904
Cotton, manufactures of		1, 000
Earthen, stone, and china ware		173
Fibers, vegetable, and textile grasses, manufactures of		751
Fish, cured or preserved		690
Fruits and nuts		401
Ginger ale	dozen. 578	493
Iron and steel, manufactures of:		
Pig iron	tons. ....	.....
Tin plates, terne plates, and taggers tin	pounds. 570, 000	28, 200
Manufactures of		294

Shipments of foreign merchandise from the United States to Alaska—Continued.

Articles.	Twelve months ending June, 1904.	
	Quantities.	Values.
Oils, vegetable—olive	gallons.. 143	\$200
Paper, and manufactures of		3
Provisions, dairy products—cheese	pounds.. 275	81
Rice	do.. 182, 270	7, 324
Spirits, wines, and malt liquors:		
Malt liquors—		
In bottles or jugs	gallons.. 937	1, 069
In other coverings		369
Spirits, distilled—		
Brandy	proof gallons.. 195	991
All other	1, 442	6, 230
Wines—		
Champagne, and other sparkling	dozen quarts.. 57	1, 943
Still wines—		
In casks	gallons.. 268	1, 210
In other coverings	dozen quarts.. 80	781
Total		12, 593
Tobacco, manufactures of:		
Cigars, cigarettes, and cheroots	M.. 1, 300	5, 396
All other		32
Vegetables:		
Pickles and sauces		52
All other—		
In their natural state		32
Prepared or preserved		737
All other dutiable articles		1, 613
Total dutiable articles		86, 279
Total shipments of foreign merchandise		295, 389
Carried in American steam vessels		54, 704
Carried in American sailing vessels		240, 685

CUSTOMS DISTRICTS FROM WHICH SHIPPED.

	Value.
Bangor, Me	\$14
Oregon, Oreg	10, 899
San Francisco, Cal	270, 663
Willamette, Oreg	491
Puget Sound, Wash	13, 422

Shipments of domestic merchandise from Alaska to the United States.

Articles.	Twelve months ending June, 1904.	
	Quantities.	Values.
Animals:		
Horses	number.. 52	\$7, 010
All other		1, 285
Total		8, 295
Art works: Paintings and statuary		862
Bones, hoofs, horns, and horn tips, and waste		1, 951
Books, maps, engravings, etchings, and other printed matter		4, 426
Brass, and manufactures of		286
Breadstuffs:		
Bran, middlings, and mill feed	tons.. 3	66
Bread and biscuit	pounds.. 1, 031	61
Oatmeal	100	3
All other		64
Total		194

Shipments of domestic merchandise from Alaska to the United States—Continued.

Articles.	Twelve months ending June, 1904.	
	Quantities.	Values.
Bricks.....		\$38
Brooms and brushes.....		113
Carriages, cars, other vehicles, and parts of:		
Automobiles.....		350
All other carriages, and parts of.....		336
Chemicals, drugs, dyes, and medicines.....		4,193
Cider.....gallons..	32	12
Clocks and watches.....		1,055
Coal.....tons..	140	2,500
Copper, and manufactures of:		
Ore.....do.....	5,745	137,703
Manufactures of.....		4,897
Cotton, manufactures of:		
Cloths—		
Colored.....yards..	2,475	267
Uncolored.....do.....	3,797	248
Wearing apparel.....		5,047
All other.....		208
Total.....		5,770
Earthen, stone, and china ware.....		700
Eggs.....dozen..	855	192
Fertilizers.....tons..	86	2,674
Fibers, vegetable, and textile grasses, manufactures of.....		8,823
Fish:		
Fresh, other than salmon.....pounds..	2,331,000	77,231
Dried, smoked, or cured.....	2,525,744	81,281
Pickled.....barrels..	1,619	15,262
Salmon—		
Canned.....pounds..	104,568,059	8,552,985
All other, fresh or cured.....		314,021
Total.....		9,040,780
Fruits and nuts:		
Fruits—		
Green, ripe, or dried.....		469
Preserved—		
Canned.....		276
All other.....		989
Nuts.....		30
Total.....		1,714
Furs and fur skins.....		449,497
Glass and glassware.....		5,123
Gunpowder and other explosives.....		185
Hides and skins, other than furs.....pounds..	70,217	6,158
Honey.....		66
India rubber, and manufactures of.....		8,018
Instruments and apparatus for scientific purposes.....		4,668
Iron and steel, and manufactures of:		
Scrap and old.....tons..	82	1,098
Sheets and plates—steel.....pounds..	200	10
Wire.....do.....	6,000	600
Builder's hardware, saws, and tools.....		6,683
Castings, not elsewhere specified.....		8,560
Firearms.....		1,508
Machinery, machines, and parts of—		
Cash registers.....number..	5	585
Electrical machinery.....		169
Printing presses and parts of.....		125
Pumps and pumping machinery.....		702
Sewing machines and parts of.....		425
Boilers and parts of engines.....		27,311
Typewriting machines and parts of.....		719
All other.....		36,979
Pipes and fittings.....		2,296
All other manufactures of.....		17,287
Total.....		105,057
Jewelry and manufactures of gold and silver.....		10,478
Lamps, chandeliers, and all other devices for illuminating purposes.....		9
Lead, and manufactures of.....		1,603

Shipments of domestic merchandise from Alaska to the United States—Continued.

Articles.	Twelve months ending June, 1904.	
	Quantities.	Values.
Leather, manufactures of:		
Boots and shoes.....pairs.....	585	\$1,341
All other.....		1,328
Total.....		2,669
Marble and stone, and manufactures of.....		2,089
Musical instruments:		
Pianofortes.....number.....	3	1,100
All other.....		1,073
Total.....		2,173
Naval stores.....		690
Oils:		
Animal—fish.....gallons.....	147,558	41,534
Mineral, refined or manufactured—		
Naphthas, including all the lighter products of distillation.....do.....	650	195
Lubricating and heavy paraffin oil.....do.....	25	10
Vegetable.....		15
Total.....		41,754
Paints, pigments, and colors.....		123
Paper, and manufactures of.....		2,065
Perfumery and cosmetics.....		295
Provisions, comprising meat and dairy products:		
Beef products—		
Beef, fresh.....pounds.....	900	90
Tallow.....do.....	3,950	195
Hog products—		
Bacon and ham.....do.....	962	116
Pork, salted or pickled.....do.....	450	25
All other meats.....		676
Dairy products—		
Butter.....pounds.....	4,176	1,066
Cheese.....do.....	200	37
Milk.....		126
Total.....		2,331
Quicksilver.....pounds.....	2,005	1,060
Seeds.....		231
Silk, manufactures of.....		371
Soap.....		20
Spirits, wines, and malt liquors:		
Malt liquors—		
In bottles.....dozen quarts.....	448	573
In other coverings.....	2,483	619
Total malt liquors.....		1,192
Spirits, distilled—		
Brandy.....proof gallons.....	64	160
Whisky.....do.....	976	2,090
All other.....do.....	121	137
Total spirits, distilled.....do.....	1,161	2,387
Wines—		
In bottles.....dozen quarts.....	124	3,330
In other coverings.....	10	10
Total wines.....		3,340
Total spirits, wines, and liquors.....		6,919
Straw and palm leaf, manufactures of.....		76
Sugar: Candy and confectionery.....		65
Tin, manufactures of.....		3,069

Shipments of domestic merchandise from Alaska to the United States—Continued.

Articles.	Twelve months ending June, 1904.	
	Quantities.	Values.
Tobacco, and manufactures of:		
Unmanufactured leaf	pounds.. 300	\$90
Manufactures of—		
Cigars.....	M.. 121	6, 551
Cigarettes.....	M.. 32	65
Plug.....	pounds.. 6, 086	3, 110
All other.....		103
Total.....		9, 919
Toys		470
Trunks, valises, and traveling bags.....		150
Vegetables:		
Canned.....		405
All other, including pickles and sauces.....		1, 732
Total.....		2, 137
Whalebone.....	pounds.. 13, 786	58, 821
Wood, and manufactures of:		
Timber and unmanufactured wood		164
Lumber boards, deals, and planks	M feet.. 3	106
Manufactures of—		
Doors, sash, and blinds.....		152
Furniture, not elsewhere specified.....		1, 129
Hogsheads and barrels, empty.....		31, 341
All other.....		20, 526
Total.....		53, 418
Wool, manufactures of:		
Carpets.....	yards.. 30	35
Dress goods.....	do.. 1, 436	1, 515
Flannels and blankets.....		247
Wearing apparel.....		17, 212
All other.....		106
Total.....		19, 115
All other articles		71, 365
Total shipments of domestic merchandise.....		10, 100, 181
Carried in American steam vessels		2, 541, 629
Carried in American sailing vessels.....		7, 558, 552

Shipments of foreign merchandise from Alaska to the United States.

Articles.	Twelve months ending June, 1904.	
	Quantities.	Values.
FREE.		
Art works.....		\$50
Bones, horns, and hoofs, unmanufactured		947
Coffee.....	pounds.. 340	58
Furs and fur skins, undressed.....		53, 155
Hides and skins, except hides of cattle	pounds.. 2, 643	167
Household and personal effects, wearing apparel, etc.....		1, 466
India rubber, old scrap, etc.....	pounds.. 5, 895	128
Ivory: Animal.....	do.. 890	428
Tea.....	do.. 110	38
Total free articles.....		56, 437
DUTIABLE.		
Animals:		
Horses.....	number.. 12	1, 310
All other, including live poultry		55
Books, music, maps, engravings, etchings, photographs, etc		3
Chemicals, drugs, and dyes.....		1
Fish, cured or preserved.....		19
Fruits, prepared or preserved.....		18
Hides of cattle	pounds.. 105, 070	5, 208

Shipments of foreign merchandise from Alaska to the United States—Continued.

Articles.	Twelve months ending June, 1904.	
	Quantities.	Values.
Provisions, comprising meat and dairy products:		
Meat products—		
Meat and meat extracts		\$111
Rice	9,950	140
Silk, manufactures of: Dress and piece goods		20
Spirits, wines, and malt liquors:		
Spirits, distilled:		
Brandy	33	98
All other	270	1,184
Still wines	6	210
Sugar, above No. 16 Dutch standard in color	750	41
Vegetables, prepared or preserved		79
Wood, manufactures of		25
Total dutiable articles		8,522
Total shipments of foreign merchandise		64,959
Carried in American steam vessels		64,959

Imports into and exports from Alaska in its commerce with foreign countries, twelve months ending June, 1904.

Countries.	Imports.	Domestic exports.
Quebec, Ontario, Manitoba, etc.	\$310,512	\$1,466,871
British Columbia	288,167	16,112
Russia, Asiatic		64,307
Total	607,463	1,547,290
FOREIGN EXPORTS.		
Quebec, Ontario, Manitoba, etc.		12,436
British Columbia		5,106
Russia, Asiatic		858
Total		18,400

Shipments of gold and silver from and to Alaska, twelve months ending June, 1904.

Classification.	From United States to Alaska.	From Alaska to United States.
DOMESTIC.		
Gold:		
Ore and base bullion		\$5,634,089
Bullion, refined		694,435
Coin	\$58,470	19,218
Silver:		
Coin	3,100	4,286
Total domestic	61,570	6,352,028
FOREIGN.		
Gold:		
Ore and base bullion		8,330,809
Bullion, refined		224,791
Total foreign		8,555,600
Total gold and silver	61,570	14,907,628
Carried in American steam vessels	52,070	14,907,628
Carried in American sailing vessels	9,500	

APPENDIX J.

Statement of mail service in Alaska, name of contractor, rate of pay, etc.

Route No.	From--	To--	Intermediate offices.	Pay.	Contractor.	Period of service.
78055	Skagway	Haines	.....	\$2,000.00	Wm. Layton and Wm. Germain.	May 1-Oct. 31, and Nov. 1-Apr. 30, each year.
78056	Juneau	Sitka	Funter, Hoonah, Tenakee, Killisnoo, and Rodman	85,000.00	Henry Shattuck	Aug. 1, 1903, to June 30, 1906.
78057	Tanana	Fairbanks	All intermediate offices on Yukon River	a 100.00	North American Transportation and Trading Co.	Season of navigation, 1903.
78058	do	do	do	(b)	Northern Commercial Co.	Do.
78059	Seattle	Skagway	Metlakahla, Ketchikan, Wrangell, Snettisham, Juneau, Douglas, and Haines	a 75.00	Alaska Steamship Co.	Oct. 15, 1903, to June 30, 1906.
78066	do	do	Ketchikan, Juneau, and Douglas	a 125.00	do	Do.
78076	Homer	Sunrise	Kussloff (n. o.), Kenai, Tyoonok, and Hope	a 200.00	Alaska Commercial Co.	Apr. 20, 1902, to Apr. 19, 1906.
78077	Ketchikan	Ketchikan	Metlakahla, Nihlack, Dolomi, Chomley, Revilla, Loring, Sealvel, Grindall, Kasan, and Hollis.	5,800.00	Frank H. Knight	July 1, 1902, to June 30, 1906.
78078	Juneau	Skagway	Jualin, Comet, and Haines	7,400.00	Willis E. Nowell	Do.
78080	Seattle	do	Port Townsend, Ketchikan, Tonka, Petersburg, Juneau, and Douglas.	16,000.00	Pacific Coast Steamship Co.	Do.
78088	Juneau	Sundum	Snettisham	1,560.00	S. E. York	Do.
78089	St. Michael	Teller	Golovin, Solomon, Bluff City, and Nome	2,715.52	Northern Commercial Co.	From about June 15 to Oct. 15 in each year.
78090	Juneau	Juneau	Sitka, Yakutat, Orca, Ellamar, Valdez, Seldovia, Homer, Aurora, Kussloff (n. o.), Kenai, Tyoonok, and Kodiak.	8,060.87	Alaska Commercial Co.	July 1, 1902, to June 30, 1906.
78092	Seattle	St. Michael	Nome	a 470.00	Northern Commercial Co.	Season navigation each year.
78099	do	Valdez	Juneau, Sitka, Yakutat, Kayak, Nutehek (n. o.), Orca, Ellamar, and Fort Liscum.	27,606.75	Pacific Packing and Navigation Co.	July 1, 1902, to June 30, 1906.
78100	Valdez	Unalakleet	Resurrection (n. o.), Seldovia, Homer, Kodiak, Uyak, Katmai (n. o.), Karluk, Chignik, Unga, Coal Harbor, Sandpoint, Belkofsky (n. o.), and Udahta.	12,918.22	do	Do.
78104	Eagle	Tanana	Circle, Fort Yukon, and Rampart	45,005.44	Northern Commercial Co.	Do.
78106	St. Michael	do	Unalakleet, Eaton, Kaltag (n. o.), and Nulato	39,500.00	J. A. Calkins	Do.
78108	Nome	Unalakleet	Golofnin	12,100.00	Northern Commercial Co.	Dec. 1-Mar. 31, Nov. 1-30, and Apr. 1-May 31.
78109	Koserefsky	Kaltag (n. o.)	Anvik	6,000.00	Oscar Fish	July 1, 1902, to June 30, 1906.
78110	Valdez	Eagle	Copper Center, Slahna (n. o.), Tetling (n. o.), and Jackwade.	35,000.00	do	Do.
78111	Wrangell	Iketson	Wadsky, Shakan, and Klawock	1,957.43	R. B. Young	Twenty times a year.
78113	Coppermount	Teller	Sullivan	1,297.92	M. A. Mahoney	Dec. 1-Apr. 30 in each year.
78115	do	Chomley	Suizer, head of Copper Inlet (n. o.), head of Chomley Sound (n. o.)	1,406.00	Jacob Lauth	July 1, 1902, to June 30, 1906.
78116	Chisna	Route No. 78110	Sunrise	1,920.00	John R. Crittenden	Do.
78117	Hope	Resurrection	do	1,790.00	Anton Eide	Nov. 1-Mar. 31 in each year.

78118	St. Michael	Katmai	Bethel (n. o.), Nushagak	7,385.00	Oscar Foote and John Campbell.	Dec. 1-Mar. 31 in each year.
78119	Haines	Porcupine		1,490.00	Michael J. O'Connor	July 1, 1902, to June 30, 1906.
78121	Golovin	Council		3,300.00	B. F. Nudd	Do.
78122	Unga	Apollo		180.00	C. A. Fletcher	Do.
78123	Homer	Kenai	Nenelchek (n. o.), Kussilof (n. o.)	900.00	A. R. Ryan	Nov. 1-Mar. 31 in each year.
78124	Fort Yukon	Bettles	Coldfoot (n. o.)	5,000.00	A. E. Carr	Except May and Oct. each year.
78125	Barrow	Kotzebue	Point Hope	^a 750.00	S. R. Sprigg	Nov. 1-May 15 in each year.
78127	Teller	Igloo		2,200.00	F. Kleinschmidt	June 15, 1903, to June 30, 1906.
78128	Circle	Mastodon	Central House, Miller House	1,600.00	C. M. Stover	July 1, 1903, to June 30, 1906.
78131	Teller	Kotzebue	Deering, Candle, Keewalik	399.00	J. B. Shelton	Dec. 1-Apr. 30 in each year.

^a Round trip.^b \$250 each for 2 round trips; \$100 each for 6 round trips.

Statement of service authorized for period during the season of navigation 1903 to carry such weight of mails as the Department may determine, at 4 cents a pound each way.

No.	Termini.	Intermediate.	Contractor.	Number of trips.	Remarks.
78059	Seattle and Nome.....	.....	White Star Steamship Co.	Not exceeding 10 round trips.	
78060	San Francisco to St. Michael.	Nome.....	Northern Commercial Co.	Not exceeding 5 round trips.	Not to exceed \$470 for any one round trip.
78061	Teller to mouth Keewalik River (n.o.).	Wales, Deering.	.....do.....	7 round trips.....	At \$500 a round trip.
78062	Unalaska, Unalaska.	Nushagak and Bethel (n.o.).	Alaska Commercial Co.	1 round trip.....	At \$500 (complete).
78063	Koyukuk, Bettles.	.....	Northern Commercial Co.	6 round trips.....	At \$500 a round trip.
78067	Seattle, Iliamna...	Juneau, Skagway, Valdez.	Pacific Clipper Line.	2 round trips.....	
78069	Seattle, St. Michael	Nome.....	North American Transportation and Trading Co.	Not exceeding 20 round trips.	
78070	Seattle to Nome and St. Michael.	.....	Frank Waterhouse & Co.	Not exceeding 10 round trips.	
78071	Seattle, Nome.....	St. Michael.....	Northern Commercial Co.	.....do.....	
78072	.....do.....	.....	Pacific Coast Steamship Co.	Not exceeding 12 round trips.	
78073	Seattle, Teller.....	Nome.....	Northwestern Commercial Co.	Not exceeding 10 round trips.	
78075	Seattle, St. Michael	.....do.....	Pacific Clipper Line.	Not exceeding 15 round trips.	

GENERAL SCHEME OF ALASKAN MAIL SERVICE.

YUKON RIVER ROUTE.

Summer or season of navigation.—Service on the Yukon River is performed by steamboats during the season of navigation between St. Michael and Dawson, Yukon Territory, with frequency of not less than once a week, and as much oftener as steamers of contractor may run. Postal clerks are employed on all steamers carrying the mail, the line being known as the Yukon River R. P. O. All classes of mail are carried without limit of quantity, and postal clerks are authorized to make delivery at points not post-offices. The summer or season of navigation includes approximately the months of June, July, August, and September. Mails are carried from Seattle to Skagway and way points by steamers, with average frequency of not less than three days.

From Skagway the mails are conveyed over the Pacific and Arctic Railway to White Horse, Yukon Territory, thence by steamer to Lake Labarge and the upper Yukon River to Dawson, Yukon Territory, with frequency of not less than once a week, or as much oftener as steamers of contractor may run.

Winter season, including fall and spring months.—During the fall, winter, and spring seasons service on the Yukon River route is performed along the Yukon River between Eagle and St. Michael, Alaska, by closed mails in charge of star-route carriers, Eagle being the head or initial point of the route. The frequency during the months of October, November, April, and May is twice a month, and during the months of December, January, February, and March once a week. The quantity of mail carried is limited to 400 pounds per trip, with preference as follows: (1) Letters, (2) bulky first-class, but not including merchandise, and (3) separately addressed newspapers. This mail, within the limit stated, is dispatched to Eagle via Seattle and Skagway, and via Seattle and Valdez, divided between the Skagway and Valdez routes, and with frequency of not less than between Eagle and St. Michael.

Name.	Location.	Supply.	Frequency.
Afognak.....	South end of Afognak Island, about 30 miles northwest of Kodiak.	Juneau and Unalaska R. P. O. and Kodiak P. O.	
Alagnuk.....	About 10 miles south of Orca.	Orca P. O.	
Aliak Bay.....	South shore of Kodiak Island.	Uyak P. O.	
Anagnak.....	Western; Bristol Bay, about 10 miles north of Nushagak.	Nushagak P. O.	
Anchor Point.....	East shore of Cook Inlet, about 10 miles north of Homer.	Homer P. O.	
Andreafski.....	Western; Yukon River, about 100 miles from its mouth. Nearest post-office, Koserefsky.	Yukon River Route	
Anvik P. O.....	Western; Yukon River between Nulato and Koserefsky.	Yukon River Route	Summer, not less than once a week by steamers of Yukon River; winter, once a month, overland.
Anvil Creek.....	West coast, near Nome.	Nome P. O.	Once a month in each direction.
Apollo P. O.....	Alaska Peninsula, Unga Island.	Juneau and Unalaska R. P. O.	
Arctic City.....	North; Koyukuk River.	Bettles P. O.	Summer, once a month by steamer; winter, special from Homer, irregular.
Aurora P. O.....	South coast; Chigachik Bay, Cook Inlet.	Seattle and Kodiak R. P. O. and Juneau and Unalaska R. P. O.	Summer, irregular, by revenue cutters; winter, twice overland.
Barrow P. O.....	Extreme northern coast.	Nome P. O.	
Bartlett Bay.....	Southeastern; cove in Glacier Bay.	Juneau P. O.	
Belcaro.....	Southern; about 40 miles north of Valdez.	Valdez P. O.	
Belkofsky.....	Alaska Peninsula; about 75 miles west of Unga.	Juneau and Unalaska R. P. O.	
Belle Isle.....	Eastern; Yukon River; same as Eagle P. O.	Eagle P. O.	
Bergman.....	Northern; Koyukuk River.	Bettles P. O.	
Berners Bay.....	Southeastern; Lynn Canal.	Juneau P. O.; Skagway P. O.	
Bethel.....	Western; Kuskokwim River.	Summer, Unalaska P. O.; winter, Juneau and Unalaska R. P. O.	
Bettles P. O.....	Northern; on headwaters of Koyukuk River.	Summer, Koyukuk River R. P. O.; winter, Fort Yukon P. O.	Summer, 6 times by steamer plying on Koyukuk River, connecting with Yukon River route; winter, overland from Fort Yukon.
Blatchford Creek.....	Western; Nome mining region.	Nome P. O.	
Bluff P. O.....	West coast; north coast of Norton Sound, about 50 miles east of Nome.	Nome P. O.; St. Michael P. O.	Summer, 4 times a month by steamer plying between Nome and St. Michael; winter, overland from Nome, irregular.
Bocha-d-quadra.....	Southeastern; canal between Revillagigedo Island and the mainland; also known as Quadra Bay.	Ketchikan P. O.	
Bonanza District.....	Western; Nome mining region.	Nome P. O.	
Bristol Bay.....	Southwestern; southeast shore Bering Sea.	Unalaska P. O.	
Burrows Bay.....	Southeast coast; north of Revillagigedo Island.	Ketchikan P. O.	
Burroughs Bay.....	West coast; near Nome. (Same as Anvil Creek.)	Nome P. O.	
Camp Anvil.....	West coast; Keewalik River, tributary to Kotzebue Sound.	Nome P. O.	
Candle P. O.....	West coast; Kotzebue Sound.	Nome P. O.	Summer, twice a month by steamer; winter, overland, irregular.
Cape Blossom.....	West coast; Bristol Bay.	Nome P. O.	
Cape Constantine.....	West coast; Bristol Bay.	Nushagak P. O.	

Name.	Location.	Supply.	Frequency.
Cape Douglas.....	West coast; about 50 miles north of Nome.	Nome P. O.	
Cape Fashaw P. O.	Southeast coast; about 80 miles south of Juneau.	Juneau P. O.	Irregular, special from Sumdum.
Cape Nome.....	Same as Nome P. O.	Nome P. O.	
Cape Prince of Wales.....	West coast; same as Wales P. O.	Wales P. O.	
Cape Rodney.....	West coast; about 30 miles northwest of Nome.	Nome P. O.	
Cape York.....	West coast; about 30 miles northwest of Teller.	Teller P. O.	
Carmel.....	Western; Nushagak River.	Nushagak P. O.	
Charles Village.....	Eastern; Yukon River.	Circle P. O.	
Chena.....	Central Tanana River, about 300 miles from its mouth.	Summer, Tanana River R. P. O.; winter, Valdez P. O., Circle P. O.	
Chennik.....	West coast; Golofnin Bay, Norton Sound.	Golofnin P. O.	
Chican.....	Southeast coast; Kosciusko Island.	Shakan P. O.	
Chicken Creek.....	Eastern; empties into Forty Mile Creek.	Jackwade P. O.	
Chignik P. O.	South coast of Alaska Peninsula.	Juneau and Unalaska R. P. O.	Once a month in each direction.
Chikkat.....	Southeastern; Lynn Canal.	Haines P. O.	
Chilkoot.....	do.	do.	
Chisna P. O.	Eastern; Chistochena River, about 80 miles north of Copper Center.	Valdez P. O., Eagle P. O.	Once a month, overland.
Chistochena.....	Eastern.	Valdez P. O., Eagle P. O.	
Chistochena River.....	Eastern; tributary to the Copper River.	Valdez P. O.	
Chomly P. O.	Southeast coast; east coast, Prince of Wales Island; Alexander Archipelago.	Ketchikan P. O.	Once a week by steamer.
Chinitna.....	Southern; Cook Inlet.	Tyoonok P. O.	
Circle P. O.	Eastern; Yukon River between Eagle and Fort Yukon.	Yukon River route.	
Clarance.....	West coast; near Teller.	Teller P. O.	
Coal Harbor P. O.	Alaska Peninsula; Unga Island.	Juneau and Unalaska R. P. O.	Once a month in each direction.
Cold Bay.....	Alaska Peninsula; about 100 miles west of Unga.	Unga P. O.	
Cold Foot City.....	Northern; headwaters Koyukuk River.	Summer, Bettles P. O.; winter, Fort Yukon, P. O.	
Comet.....	Southeastern; Lynn Canal.	Juneau P. O.; Skagway P. O.	
Cook Inlet.....	South coast.	Juneau and Unalaska R. P. O.; Seattle and Kadiak R. P. O.	
Copper Center P. O.	Eastern; Copper River; about 100 miles north of Valdez.	Valdez P. O., Eagle P. O.	Twice a month, overland.
Copper City.....	Southern; same as Valdez P. O.	Valdez P. O.	
Coppermount P. O.	Southeast coast; south end Prince of Wales Island; Alexander Archipelago.	Ketchikan P. O.	Once a week.
Copper River.....	Southern.	Valdez P. O.	
Corwin Coal Mine.....	North coast; Arctic Ocean, east of Cape Lisburne.	Nome P. O.	
Cottonwood Island.....	Southeast coast.	Wrangell P. O.	
Council P. O.	West coast; Seward's Peninsula, about 50 miles north of Golofnin Bay, and about 75 miles east of Nome.	Golofnin P. O.	Do.
Cripple River.....	Western; Nome mining region.	Nome P. O.	
Dalton's Cache.....	Southeastern.	Forcupine P. O.	

Deering P. O	West coast; Kotzebue Sound	Nome P. O	Summer, twice a month by steamer; winter, overland, irregular.
Dolomi P. O	Southeast coast; southeast coast Prince of Wales Island; Alexander Archipelago.	Ketchikan P. O	Once a week by steamer.
Douglas P. O	Southeast coast; Douglas Island, 3 miles west of Juneau.	Seattle and Skagway R. P. O.; Juneau P. O.	Juneau, daily. Seattle and Skagway R. P. O. every three days.
Dutch Harbor (Udakta P. O.).	Unalaska Island; eastern Aleutians.	Udakta P. O.	
Dyea	Southeastern; head of Lynn Canal.	Skagway P. O.	
Eagle P. O.	Eastern; Yukon River, near International Boundary.	Yukon River route; Valdez P. O.	
Eaton	Western; about 10 miles east of Unalakleet	Unalakleet P. O.	Twice a month.
Ellamar P. O.	South coast; Prince William Sound	Seattle and Kodiak R. P. O.	Do.
Etolin	West coast; Bering Sea; Nunivak Island.	Juneau and Valdez R. P. O.	Once a month.
Evak	South coast; near Orca.	Unalaska P. O.	
Fairbanks	Central Tanana River, about 300 miles from its mouth.	Orca P. O.	
Five Finger Light-House.	Southeast coast; Frederick Sound.	Summer, Tanana River R. P. O.; winter, Valdez P. O., Circle P. O.	
Five Finger Islands.	Central; Yukon River, near Tanana.	Cape Fanshaw P. O.	
Fort Adams	Western coast; Bristol Bay, near Nushagak.	Tanana P. O.	
Fort Alexander	Western; Kowak River, near Kotzebue Mission.	Nushagak P. O.	
Fort Cosmos		Nome P. O.	
Fort Davis	Military post at Nome.	Nome P. O.	
Fort Egbert	Eastern; military post at Eagle.	Eagle P. O.	
Fort Gibbon	Military post at Tanana.	Tanana P. O.	
Fort Hamilton	Western; Yukon River, about 25 miles above its mouth. Nearest post-office, St. Michael.	Yukon River route	
Fort Hamlin	Eastern; Yukon River. Nearest post-office, Rampart.	Yukon River route	
Fort Kenai	Same as Kenai	Kenai P. O.	
Fort Liscum P. O.	South coast; Prince William Sound, Port Valdez.	Juneau & Unalaska R. P. O.	Juneau and Unalaska R. P. O., once a month in each direction.
Fort St. Michael.	Military post at St. Michael.	Valdez P. O.	Valdez, irregular.
Fort Yukon P. O.	Eastern; Yukon River, between Circle and Rampart.	St. Michael P. O.	See Yukon River route in footnotes.
Franklin P. O.	Eastern; about 75 miles south of Eagle	Yukon River route	
Franklin Creek.	Same as Franklin	Jackwade, P. O.	Twice a month, overland.
Funter P. O.	Southeast coast; northwest coast of Admiralty Island, about 20 miles west of Juneau.	Franklin P. O.	Irregular.
Goldmin Bay	West coast; Norton Sound	Juneau P. O.	
Golovin P. O.	West coast; Golofnin Bay, north shore of Norton Sound.	Golovin P. O.	
Golsovia River	Western; empties into Norton Sound	Summer, Nome P. O., St. Michael P. O.; winter, Seattle, Wash.	Summer, 4 times a month by steamer, plying between St. Michael and Nome; winter, approximately 4 times a month by Yukon River route.
Goodhope Bay	Western; Kotzebue Sound	St. Michael P. O.	
Grindall P. O.	Southeast coast; east coast Prince of Wales Island, Alexander Archipelago.	Deering P. O.	Once a week by steamer.
		Ketchikan P. O.	

Name.	Location.	Supply.	Frequency.
Haines P. O.	Southeastern; north end of Lynn Canal	Seattle and Skagway R. P. O., Skagway P. O., Juneau P. O.	Seattle and Skagway R. P. O.; 4 times a month in each direction. Juneau (Skagway), summer twice a week; winter once a week.
Hamiltons Landing	Western; Yukon River; nearest post-office, Nulato.	Yukon River route	
Harrisburg	Same as Juneau P. O.	Juneau P. O.	
Healy	Same as St. Michael P. O.	St. Michael P. O.	
Helm Bay	Southeast coast; Cleveland Peninsula, about 24 miles north of Ketchikan.	Ketchikan P. O.	
Holkham Bay	Southeastern	Juneau P. O.	
Hollis P. O.	Southeast coast; east coast Prince of Wales Island, Alexander Archipelago.	Ketchikan P. O.	Once a week by steamer.
Holy Cross Mission	Same as Koserefsky P. O.	Koserefsky P. O.	
Homer P. O.	South coast; Cook Inlet.	Seattle and Kodiak R. P. O., Juneau and Unalaska R. P. O.	Once a month in each direction by Juneau and Unalaska R. P. O., and once a month by Seattle and Kodiak R. P. O.
Hoonah P. O.	Southeast coast; north coast of Chichagof Island.	Juneau P. O., Sitka P. O.	Summer, every 4 days by steamer plying between Juneau and Sitka; winter, every 6 days by steamer plying between Juneau and Sitka.
Hoonah Hot Springs	Southeastern; Chichagof Island.	Hoonah P. O.	
Hooper Bay	West coast; 100 miles south of mouth of Yukon River.	St. Michael P. O.	
Hope P. O.	South coast; Cook Inlet; Turnagain Arm	Seattle and Kodiak R. P. O., Juneau and Unalaska R. P. O.	Summer, twice a month by steamer; winter, once a month overland from Resurrection (n. o.).
Howkan.	Southeast coast; same as Jackson P. O.	Jackson P. O.	
Hunters Bay	Southeast coast; southern coast Prince of Wales Island.	Jackson P. O.	
Igloo P. O.	West coast; Seward's Peninsula, 60 miles east of Teller.	Nome P. O.	Summer, twice a week by inland steamer from Teller; winter, overland from Teller, irregular.
Iliamna	Southern; southwest shore Cook Inlet.	Homer P. O.	Approximately twice a month by steamer.
Jackson P. O.	Southeast coast; near southwest coast Prince of Wales Island; Alexander Archipelago.	Wrangell P. O.	Twice a month, overland.
Jackwade P. O.	Eastern; about 55 miles south of Eagle.	Eagle P. O., Valdez P. O. (Eagle P. O. should be given preference in summer).	Summer, twice a week by steamer plying between Juneau and Skagway; winter, once a week by steamer plying between Juneau and Skagway.
Jualin P. O.	Southeast coast; Berners Bay; Lynn Canal	Juneau P. O., Skagway P. O.	Every three days.
Juneau P. O.	Southeast coast; on mainland, near Douglas Island.	Seattle and Skagway R. P. O.	Twice a month in each direction.
Kaake.	Southeast coast; Kupreanof Island	Seattle and Kodiak R. P. O.	
Kalag.	Western; Yukon River; nearest post-office, Nulato.	Juneau and Unalaska R. P. O.	
Karluk P. O.	South coast; Kodiak Island.	Yukon River route.	Once a month in each direction.
		Juneau and Unalaska R. P. O.	Do.

Karta Bay.....	Southeast coast; east shore Prince of Wales Island.	Kasaan P. O.....	Once a week by steamer.
Kasaan P. O.....	Southeast coast; east coast Prince of Wales Island, Alexander Archipelago.	Ketchikan P. O.....	
Kasaan Bay.....	Southeast coast; east shore Prince of Wales Island.	Kasaan P. O.....	
Katmai.....	South coast; Shelikoff Strait, west of Kodiak Island.	Juneau and Unalaska R. P. O.....	
Kayak P. O.....	South coast; Wigham Island, Controller Bay.	.....do.....	Once a month in each direction.
Keewalik P. O.....	West coast; Keewalik River, tributary to Kotzebue Sound.	Nome P. O.....	Summer, twice a month by steamer; winter, overland, irregular.
Kenai P. O.....	South coast; east shore of Cook Inlet.	Seattle and Kodiak R. P. O., Juneau and Unalaska R. P. O.	Summer, twice a month by steamer; winter, overland, once a month from Homer.
Ketchikan P. O.....	Southeast coast; west shore of Revillagigedo Island. (Custom-house.)	Seattle and Skagway R. P. O.....	See Seattle and Skagway R. P. O.; every 3 days.
Kechumstock.....	Eastern; about 50 miles south of Jackwade P. O.	Valdez P. O., Eagle P. O.....	
Killsnoo P. O.....	Southeast coast; east coast of Admiralty Island.	Juneau P. O., Sitka P. O.....	Summer, every 4 days by steamer plying between Juneau and Sitka; winter, every 6 days by steamer plying between Juneau and Sitka.
Kiniaak.....	Southwestern; Bristol Bay.	Unalaska P. O.....	Approximately twice a month by steamer.
Klawock P. O.....	Southeast coast; west coast Prince of Wales Island, Alexander Archipelago.	Wrangell P. O.....	
Klinguan.....	Southeast coast; Prince of Wales Island.	Jackson P. O.....	
Klukwan.....	Southeastern; north end Lynn Canal.	Haines P. O.....	
Klutina River.....	Southern; near Copper Center P. O.	Copper Center P. O.....	
Knick.....	Southern; Turnagain Arm, Cook Inlet.	Hope P. O.....	
Kodiak P. O.....	South coast; Kodiak Island.	Seattle and Kodiak R. P. O.; Juneau and Unalaska R. P. O.	Once a month in each direction by Juneau and Unalaska R. P. O. and once a month by Seattle and Kodiak R. P. O.
Koglung.....	Southwestern; Bristol Bay.	Nushagak P. O.....	Summer, not less than once a week by steamers on Yukon River; winter, once a month, overland.
Koserefsky P. O.....	Western; Yukon River, between Anvik and mouth of Yukon River.	Yukon River route.....	Summer, twice a month by steamer; winter, overland, irregular.
Kotzebue Mission.....	West coast.	Nome P. O.....	Do.
Kotzebue Sound.....	.....do.....	.....do.....	
Koyukuk.....	Western; confluence of Koyukuk and Yukon rivers; nearest post-office, Nulato.	Yukon River route.....	
Kuskokwim River.....	Western.	Summer Unalaska P. O.; winter, Juneau and Unalaska R. P. O.	
Kasilof.....	Southern; east coast of Cook Inlet.	Seattle and Kodiak R. P. O.; Juneau and Unalaska R. P. O.	
Kutlik.....	West coast; mouth of Yukon River.	St. Michael P. O.....	
Lads Station.....	Southern; head of Cook Inlet.	Tyoonok P. O.....	
Leather village.....	Same as Koserefsky.	Koserefsky P. O.....	
Lincoll Rock.....	South coast; Clarence Strait.	Wrangell P. O.....	
Loring P. O.....	Southeast coast; about 25 miles north of Ketchikan.	Ketchikan P. O.....	Once a week by steamer.
Marys Igloo.....	Same as Igloo.	Igloo P. O.....	
Marys Island.....	Extreme southeast coast.	Ketchikan P. O.....	

Name.	Location.	Supply.	Frequency.
Mastodon P. O.	Eastern; about 60 miles southwest of Circle, which is located on the Yukon River.	Circle P. O.	
Melozikaket.	Central; Yukon River; nearest post-office, Tanana.	Yukon River route.	
Meshik.	Alaska Peninsula; Bristol Bay.	Unalaska P. O.	Seattle and Skagway R. P. O. twice a month; Ketchikan once a week.
Mashkahtla P. O.	Extreme southeast coast; west coast Annette Island.	Seattle and Skagway R. P. O., Ketchikan P. O.	
Mimina.	Southern; east shore Cook Inlet.	Homer P. O.	
Mineok.	Same as Rampart.	Rampart P. O.	
Naknek.	Southwest coast; near head of Bristol Bay.	Unalaska P. O.	
Niblack P. O.	Southwest coast; south end Prince of Wales Island, Alexander Archipelago.	Ketchikan P. O.	Once a week by steamer.
Nikahkak.	Southern; Lake Clark, west of Cook Inlet.	Tyoonok P. O.	
Nohalolton.	Central; Yukon River; nearest post-office, Nulato.	Yukon River route.	
Nome P. O.	West coast; south coast of Seward's Peninsula.	Yukon River route; Seattle, Wash.; San Francisco, Cal.	Winter, Yukon River route; summer, by practically all steamers sailing from Seattle and San Francisco.
Norton Bay.	West coast; Norton Sound.	St. Michael P. O.	
Norton Sound.	West coast.	do.	
Novikaket.	Central; Yukon River; nearest post-office, Tanana.	Yukon River route.	
Nulato P. O.	Western; Yukon River, about 20 miles west of mouth of Koyukuk River.	do.	
Nunivak Island.	West coast.	Unalaska P. O.	Summer, by steamers and sailing vessels from Unalaska, irregular—not less than twice during season; winter, overland from Katmai (n. o.) (supplied by Juneau and Unalaska R. P. O. 3 times).
Nushagak P. O.	Southwest coast; mouth of Nushagak River, Bristol Bay.	Juneau and Unalaska R. P. O., Unalaska P. O.	
Nutchek.	Near entrance to Prince William Sound.	Juneau and Unalaska R. P. O.	Once a month in each direction by each line.
Odak.	South coast; near Orca.	Orca P. O.	
Orca P. O.	South coast; Prince William Sound.	Juneau and Unalaska R. P. O.; Seattle and Kodiak R. P. O.	
Peavy.	Northern; Koyukuk River.	Bettles P. O.	
Penny River.	Western; Nome mining region.	Nome P. O.	
Petersburg P. O.	Southeast coast; northern part of Mitkof Island.	Seattle and Skagway R. P. O.	10 times a month in each direction.
Pickarts Station.	Yukon River; same as Koyukuk; nearest post-office, Nulato.	Yukon River route.	
Point Barrow.	Same as Barrow.	Barrow P. O.	
Point Ellis.	Southeast coast; Kuiu Island.	Wrangell P. O.	
Point Gravina.	Southeast coast.	Ketchikan P. O.	
Point Hope.	Arctic coast; north of Kotzebue Sound.	Nome P. O.	
Point Mackenzie.	Southern; Cook Inlet; Turnagain Arm.	Hope P. O.	
Porcupine P. O.	Southeastern; about 40 miles northwest of the upper end of Lynn Canal, and about 40 miles west of Skagway.	Haines P. O.	Once a week.

Porcupine River.....	Northeastern; empties into Yukon River at Fort Yukon.	Fort Yukon P. O.....	
Portage Bay.....	Southern; northwestern part Prince William Sound.	Sunrise P. O.....	
Port Chester.....	Southeast coast; Annette Island.	Metlakahla P. O.....	
Port Clarence.....	West coast.	Teller P. O.....	
Port Fidalgo.....	South coast; Prince William Sound.	Ellamar P. O.....	
Port Gravina.....	South coast; between Nome and Solomon.	Valdez P. O.....	
Port Safety.....	South coast; Prince William Sound.	Nome P. O.....	
Port Wells.....	South coast; north of the Aleutian Islands.	Valdez P. O.....	
Pribilof Islands.....	Bering sea; north of the Aleutian Islands.	Unalaska P. O.....	
Prince William Sound.....	South coast.	Valdez P. O.....	
Pyramid.....	Southeastern; north end Lynn Canal.	Haines P. O.....	
Quadra Bay.....	Southeastern; Revillagigedo Island.	Ketchikan P. O.....	
Quartz Creek.....	Copper River region.	Copper Center P. O.....	
Rampart P. O.....	Eastern; Yukon River, between Fort Yukon and Tanana.	Yukon River route.....	
Resurrection Bay.....	South coast.	Juneau and Unalaska R. P. O.....	
Revilla.....	Southeastern; Revillagigedo Island.	Ketchikan P. O.....	
Rodman P. O.....	Southeast coast; northern part of Baranof Island.	Juneau P. O., Sitka P. O.....	
Safety P. O.....	West coast; about 25 miles east of Nome.	Nome P. O.....	Summer, every 4 days by steamer plying between Juneau and Sitka; winter, every 6 days by steamer plying between Juneau and Sitka.
St. George Island.....	Pribilof Group; Bering Sea.	Unalaska P. O.....	Irregular.
St. James Mission.....	Central; Yukon River; nearest post-office, Tanana.	Yukon River route.....	
St. Michael P. O.....	West coast; Norton Sound.	Yukon River route; Seattle, Wash.; San Francisco, Cal.	Winter, Yukon River route; summer, by practically all steamers sailing from Seattle and San Francisco.
St. Michael Island.....	Same as St. Michael.	St. Michael P. O.....	
St. Paul Island.....	Pribilof group.	Unalaska P. O.....	
Sandpoint P. O.....	South coast of Alaska Peninsula; Popof Island.	Juneau and Unalaska R. P. O.....	Once a month in each direction.
Sandford Cove.....	Same as Sundum.	Sundum P. O.....	
Saxman.....	Southeastern; Revillagigedo Island.	Ketchikan P. O.....	
Scammon Bay.....	West coast; about 50 miles south of the mouth of Yukon River.	St. Michael P. O.....	
Scotch Cap.....	Alaska Peninsula.	Unalaska P. O.....	Once a week by steamer.
Sealevel P. O.....	Southeast coast; about 25 miles east of Ketchikan.	Ketchikan, P. O.....	Once a month in each direction by Juneau and Unalaska R. P. O., and once a month by Seattle and Kodiak R. P. O.
Seldovia P. O.....	South coast; Cook Inlet.	Seattle and Kodiak R. P. O.; Juneau and Unalaska R. P. O.	
Seward City.....	Southeastern; Lynn Canal.	Jualin P. O.....	
Shageluk.....	Western; tributary to Yukon River.	Koserefsky P. O.....	
Shakun P. O.....	Southeast coast; northern end Prince of Wales Island, Alexander Archipelago.	Wrangell P. O.....	
Shishmoref.....	West coast.	Nome P. O.....	Approximately twice a month by steamer.
Sinrock.....	Western; Nome mining region.	do.....	

Name.	Location.	Supply.	Frequency.
Sitka P. O.	Southeast coast; Baranof Island	Juneau P. O.	Juneau, every four days during summer and every six days during winter.
Skagway P. O.	Southeastern; at head of Lynn Canal, about 150 miles north of Juneau.	Juneau and Unalaska R. P. O.	Juneau and Unalaska R. P. O., once a month in each direction.
Slahna	Central; Copper River.	Seattle and Valdez R. P. O.	Seattle and Valdez R. P. O., twice a month in each direction.
Sledge Island.	West coast; near Nome.	Seattle and Kodiak R. P. O.	Seattle and Kodiak R. P. O., once a month west bound.
Snake Creek.	Western; Nome mining region.	Seattle and Skagway R. P. O. and Yukon River route.	
Snettisham P. O.	Southeast coast; about 40 miles south of Juneau.	Horse, Y. T., from the north.	
		Valdez P. O., Eagle P. O.	
		do.	
Snug Harbor	South coast; east shore of Cook Inlet	Juneau P. O., Seattle and Skagway R. P. O.	Twice a month by Seattle and Skagway R. P. O., and once a week by steamer from Juneau.
Solomon P. O.	West coast; Norton Sound, about 30 miles east of Nome.	Homer P. O.	
		Summer, Nome P. O., St. Michael P. O.; winter, Nome P. O.	Summer, four times a month by steamer plying between St. Michael and Nome; winter, overland from Nome, irregular.
Spooner P. O.	West coast; Seward Peninsula, about 100 miles east of Teller.	Nome P. O.	Overland from Teller, irregular.
Starr	Eastern; Yukon River; nearest post-office, Eagle.	Yukon River route.	
Stuart Island	West coast; near St. Michael.	St. Michael P. O.	
Sullivan P. O.	West coast; Seward Peninsula, about 15 miles southeast of Teller.	Nome P. O.	Do.
Sulzer P. O.	Southeast coast; southern part of Prince of Wales Island, Alexander Archipelago.	Ketchikan P. O.	Once a week.
Sundrum P. O.	Southeast coast; 60 miles south of Juneau.	Juneau P. O.	Once a week by steamer from Juneau.
Sunrise P. O.	South coast; Turnagain Arm, Cook Inlet	Seattle and Kodiak R. P. O., Juneau and Unalaska R. P. O.	Summer, twice a month by steamer; winter, once a month overland from Resurrection (n. o.).
Swanport.	Same as Valdez	Valdez P. O.	
Swanson Harbor	Southeast coast.	Petersburg P. O.	
Swedish Mission	Same as Golovin	Golovin P. O.	
Tanana P. O.	Central; Yukon River at mouth of Tanana River.	Yukon River route.	
Teller P. O.	West coast; Seward Peninsula, about 70 miles northwest of Nome.	Nome P. O.	Summer, twice a month by steamer; winter, twice a month overland.
Teller Reindeer Station	Same as Teller	Teller P. O.	
Tenakee P. O.	Southeast coast; southeastern part of Chichagof Island.	Juneau P. O., Sitka P. O.	Summer, every 4 days by steamer plying between Juneau and Sitka; winter, every 6 days by steamer plying between Juneau and Sitka.
Thetis Coal Mine.	Northwest coast.	Nome P. O.	

Thorne Bay	Southeastern; east shore Prince of Wales Island.	Ketchikan P. O	About 6 times per month in each direction.
Tongass	Extreme southeast coast.	do	
Tongass Narrows	Southeastern; between Revillagigedo and Gravina Islands.	do	
Tonka P. O.	Southeast coast; east shore of Kupreanof Island.	Seattle and Skagway R. P. O.	
Topkok	Western; Nome mining region.	Nome P. O.	
Tramway Bar	Central; Middle Fork, Koyukuk River.	Yukon River route	
Treadwell P. O.	Southeast coast; Douglas Island, near Juneau.	Seattle and Skagway R. P. O.	Juneau, daily.
Treadwell Mines	Same as Treadwell	Juneau P. O.	Seattle and Skagway R. P. O. every 3 days.
Tuklukyet	Central; Yukon River; nearest post-office, Tanana.	Treadwell P. O.	
Turnagain Arm	South coast; northeast arm of Cook Inlet.	Yukon River route	
Tyosnoak P. O.	South coast; northern end of Cook Inlet.	Sunrise P. O.	
Udakta P. O. (Dutch Harbor)	Eastern Aleutians; Unalaska Island	Seattle and Kodiak R. P. O., Juneau and Unalaska R. P. O.	Summer, twice a month by steamer; winter, special from Homer, irregular.
Unalakleet P. O.	West coast; Norton Sound, about 60 miles north-east of St. Michael.	Juneau and Unalaska R. P. O., Seattle, Wash. .	Summer, once a month by Juneau and Unalaska R. P. O., and irregularly by steamers from Seattle; winter, once a month by Juneau and Unalaska R. P. O.
Unalaska P. O.	Eastern Aleutians; Unalaska Island	Summer, St. Michael P. O.; winter, Yukon River route.	Summer, once a week from St. Michael; winter, approximately 4 times a month by Yukon River route.
Unga P. O.	South coast of Alaska Peninsula; Unga Island.	Juneau and Unalaska R. P. O.	Summer, once a month by Juneau and Unalaska R. P. O., and irregularly by steamers from Seattle; winter, once a month by Juneau and Unalaska R. P. O.
Unimak	Alaska Peninsula	Bettles P. O.	Once a month in each direction.
Union City	Central; South Fork, Koyukuk River.	Juneau and Unalaska R. P. O.	Seattle and Valdez R. P. O., 2 to 3 times a month.
Uyak P. O.	South coast; Kodiak Island	Seattle and Valdez R. P. O.	Seattle and Kodiak R. P. O., once a month in each direction.
Valdez P. O.	South coast; Prince William Sound, Port Valdez.	Seattle and Kodiak R. P. O.	Juneau and Unalaska R. P. O., once a month in each direction.
Wales P. O.	West coast; Bering Strait, about 150 miles northwest of Nome.	Juneau and Unalaska R. P. O.	Seattle, irregular, in addition to the above R. P. O.'s.
Wear	Same as Tanana.	Seattle, Wash.	
White Pass	Southeastern; on boundary line. Station Pacific and Arctic Rwy. Twenty miles north of Skagway.	Also Yukon River route, via Eagle, from the north.	Summer, twice a month by steamer from Nome; winter, overland from Teller, irregular.
Woodsky P. O.	Southeast coast; about 30 miles west of Wrangell.	Nome P. O.	
Wood Island	South coast; near Kodiak Island	Tanana P. O.	
		Skagway P. O.	Approximately twice a month by steamer.
		Wrangell P. O.	
		Kodiak P. O.	

Name.	Location.	Supply.	Frequency.
Wrangell P. O.	Southeast coast; north end of Wrangell Island. Western Yukon River; nearest post-office, Koserefsky.	Seattle and Skagway R. P. O.	About 10 times a month in each direction.
Yakagamut		Yukon River route.	
Yakutat P. O.	South coast; Yakutat Bay	Juneau and Unalaska R. P. O.	Juneau and Unalaska R. P. O., once a month in each direction.
		Seattle and Kodiak R. P. O.	
Yes Bay	Southeast coast; Cleveland Peninsula	Seattle and Valdez R. P. O.	Seattle and Kodiak R. P. O., once a month in each direction.
		Seattle and Valdez R. P. O.	
		Ketchikan P. O.	
		Teller P. O.	
York	West coast; about 40 miles west of Teller.	Yukon River route.	Seattle and Valdez R. P. O., twice a month in each direction.
Yukon			

APPENDIX K.

REPORT OF TRANSACTIONS AT CUSTOM-HOUSE, DISTRICT OF ALASKA.

PORT OF CONSOLIDATED,
Collector's Office, July 1, 1904.

SIR: I have the honor to submit the following summary statement of the transactions of this office for the month ending June 30, 1904, viz:

Vessels entered from foreign ports.....	354
Vessels cleared for foreign ports.....	304
Vessels entered from domestic ports.....	382
Vessels cleared for domestic ports.....	387
Entries of merchandise for duty.....	1,447
Entries of merchandise free of duty.....	719
Entries for rewarehouse.....	1
Entries from warehouse for consumption.....	1
Entries from warehouse for exportation to adjacent British provinces.....	1,185
Total number of entries of all kinds.....	3,353
Entries for consumption liquidated.....	2,174
Entries for warehouse liquidated.....	11
Certificates of registry granted.....	17
Certificates of enrollment granted.....	20
Licenses for coasting trade granted.....	62
Licenses for fisheries granted.....	1
Licenses to vessels under 20 tons granted.....	120
Total number of documents to vessels issued.....	220

Receipts from all sources.

Duties on imports.....	\$57,948.42
Tonnage tax.....	3,042.78
Fines, penalties, and forfeitures.....	5,152.00
Head tax.....	28.00
Miscellaneous customs receipts.....	2,205.41
Wharfage and dockage.....	3,081.15
Storage, labor, and cartage.....	9.91
Official fees.....	2,578.42
Total.....	74,046.09

Expenses of collection.

Fees retained by and commissions allowed and paid to collector or surveyor.....	\$1,376.40
Compensation for services to American vessels.....	51,523.16
Expenses of weighers and gaugers.....	1,950.50
Rents.....	3,616.24
Miscellaneous expenses.....	3,491.89
Total expenses for the month.....	61,958.19

Number of persons employed, collector's office.

Collector.....	1
Deputy collectors.....	13
Clerks.....	1
Other employees, stenographer.....	1
Deputy collectors and inspectors.....	16
Aggregate.....	32

PORT OF SITKA,
Collector's Office, July 1, 1904.

SIR: I have the honor to submit the following summary statement of the transactions of this office for the year ending June 30, 1904, viz:

Vessels entered from domestic ports	4
Vessels cleared for domestic ports	2
Entries of merchandise for duty	8
Total number of entries of all kinds	8
Entries for consumption liquidated	7
Certificates of enrollment granted	1
Licenses for coasting trade granted	4
Licenses to vessels under 20 tons granted	7
Total number of documents to vessels issued	12

Receipts from all sources.

Duties on imports	\$530. 75
Miscellaneous customs receipts	21. 00
Wharfage and dockage	3, 081. 15
Official fees	1. 47
Total	3, 634. 37

Expenses of collection.

Fees retained by and commissions allowed and paid to collector or surveyor	\$1, 252. 80
Compensation for services to American vessels	9, 006. 10
Pay roll of public stores	21. 00
Rents	1, 003. 63
Total expenses for the month	11, 283. 53

Number of persons employed, collector's office.

Collector	1
Deputy collectors and inspectors	3
Clerks	1
Other employees, stenographer	1
Aggregate	6

PORT OF EAGLE,
Collector's Office, July 1, 1904.

SIR: I have the honor to submit the following summary statement of the transactions of this office for the year ending June 30, 1904, viz:

Vessels entered from foreign ports	95
Vessels cleared for foreign ports	48
Entries of merchandise for duty	497
Entries of merchandise free of duty	265
Total number of entries of all kinds	762
Entries for consumption liquidated	761

Receipts from all sources.

Duties on imports	\$24, 589. 55
Tonnage tax	956. 40
Fines, penalties, and forfeitures	2. 00
Miscellaneous customs receipts	176. 25
Official fees	588. 90
Total	26, 313. 10

Expenses of collection.

Salaries of collectors, deputies, clerks, inspectors, weighers, storekeepers, etc	\$4, 612. 81
Pay roll of public stores	135. 00
Expenses of weighers and gaugers	600. 00
Rents	194. 90
Total expenses for the month	5, 542. 71

Number of persons employed, collector's office.

Deputy collectors.....	1
Deputy collectors and inspectors	2
Aggregate	3

PORT OF JUNEAU,
Collector's Office, July 1, 1904.

SIR: I have the honor to submit the following summary statement of the transactions of this office for the year ending June 30, 1904, viz:

Vessels entered from foreign ports.....	2
Vessels cleared for foreign ports	21
Vessels entered from domestic ports	36
Vessels cleared for domestic ports.....	61
Entries of merchandise for duty	94
Entries of merchandise free of duty	7
Total number of entries of all kinds	101
Entries for consumption liquidated	100
Certificates of registry granted.....	9
Certificates of enrollment granted	3
Licenses for coasting trade granted.....	10
Licenses to vessels under 20 tons granted.....	25
Total number of documents to vessels issued	47

Receipts from all sources.

Duties on imports	\$13,956.31
Tonnage tax	50.28
Fines, penalties, and forfeitures	600.00
Miscellaneous customs receipts	538.00
Official fees	67.50
Total	15,212.09

Expenses of collection.

Commissions allowed and paid to collector or surveyor.....	\$123.60
Compensation for services to American vessels.....	3,496.90
Expenses of weighers and gaugers	538.00
Rents	400.00
Miscellaneous expenses	160.00
Total expenses for the month	4,718.50

Number of persons employed—Collector's office.

Deputy collectors.....	1
Inspectors	1
Deputy collector and inspector	1
Aggregate.....	3

PORT OF WRANGELL,
Collector's Office, July 1, 1904.

SIR: I have the honor to submit the following summary statement of the transactions of this office for the year ending June 30, 1904, viz:

Vessels entered from foreign ports	14
Vessels cleared for foreign ports	18
Vessels entered from domestic ports	8
Vessels cleared for domestic ports	6
Entries of merchandise for duty	24
Entries of merchandise free of duty	7
Entries from warehouse for exportation to adjacent British provinces.....	127
Total number of entries of all kinds	158
Entries for consumption liquidated	31
Certificates of enrollment granted	1

Licenses for coasting trade granted	15
Licenses to vessels under 20 tons granted	19
Total number of documents to vessels issued	35

Receipts from all sources.

Duties on imports	\$994. 02
Tonnage tax	35. 52
Fines, penalties, and forfeitures	700. 00
Miscellaneous customs receipts	90. 00
Official fees	78. 40
Total	1, 897. 94

Expenses of collection.

Salaries of collector, deputies, clerks, inspectors, weighers, storekeepers, etc. \$1, 964. 00	
Expenses of weighers and gaugers	90. 00
Miscellaneous expenses	38. 95
Total	2, 092. 95

Number of persons employed—Collector's office.

Deputy collector	1
Deputy collector and inspector (6 months, 5 days)	1
Aggregate	2

PORT OF KETCHIKAN,
Collector's Office, July 1, 1904.

SIR: I have the honor to submit the following summary statement of the transactions of this office for the year ending June 30, 1904, viz:

Vessels entered from foreign ports	206
Vessels cleared for foreign ports	137
Vessels entered from domestic ports	233
Vessels cleared for domestic ports	204
Entries of merchandise for duty	67
Entries of merchandise free of duty	6
Total number of entries of all kinds	73
Entries for consumption liquidated	74
Certificates of registry granted	2
Certificates of enrollment granted	5
Licenses for coasting trade granted	10
Licenses to vessels under 20 tons granted	43
Total number of documents to vessels issued	60

Receipts from all sources.

Duties on imports	\$2, 783. 85
Tonnage tax	1, 420. 35
Fines, penalties, and forfeitures	3, 330. 00
Miscellaneous customs receipts	167. 50
Storage, labor, and cartage	28. 00
Official fees	1, 394. 61
Total	9, 124. 31

Expenses of collection.

Salaries of collector, deputies, clerks, inspectors, weighers, storekeepers, etc. \$4, 162. 00	
Expenses of weighers and gaugers	159. 50
Rents	300. 00
Miscellaneous expenses	174. 45
Total	4, 795. 95

Number of persons employed—Collector's office.

Deputy collector	1
Deputy collectors and inspectors.....	2
Aggregate	3

PORT OF SKAGWAY,
Collector's Office, July 1, 1904.

SIR: I have the honor to submit the following summary statement of the transactions of this office for the year ending June 30, 1904, viz:

Vessels cleared for foreign ports	14
Entries of merchandise for duty	416
Entries of merchandise free of duty	272
Entries from warehouse for exportation to adjacent British provinces	1, 044
Total number of entries of all kinds	1, 732
Entries for consumption liquidated	688
Certificates of registry granted	1
License to vessels under 20 tons granted	1
Total number of documents to vessels issued	2

Receipts from all sources.

Duties on imports	\$6, 838. 01
Miscellaneous customs receipts	1, 051. 71
Storage, labor, and cartage	9. 91
Official fees	147. 90
Total	8, 047. 53

Expenses of collection.

Salaries of collectors, deputies, clerks, inspectors, weighers, storekeepers, etc.....	\$10, 786. 50
Expenses of weighers and gaugers	932. 00
Rents	636. 24
Miscellaneous expenses	222. 86
Total expenses for the month	12, 577. 60

Number of persons employed, collector's office.

Deputy collector	1
Deputy collectors and inspectors (five months)	7
Deputy collectors and inspectors (six months)	6
Deputy collectors and inspectors (one month)	5
Aggregate	18

PORT OF FORTY MILE,
Collector's Office, July 1, 1904.

SIR: I have the honor to submit the following summary statement of the transactions of this office for the year ending June 30, 1904, viz:

Entries of merchandise for duty	318
Entries of merchandise free of duty	102
Total number of entries of all kinds	420
Entries for consumption liquidated	420

Receipts from all sources.

Duties on imports	\$4, 772. 67
-------------------------	--------------

Expenses of collection.

Salaries of collectors, deputies, clerks, inspectors, weighers, storekeepers, etc.....	\$4,314.40
Miscellaneous expenses.....	360.00
Rents.....	480.25
Total expenses for the month.....	5,154.65

Number of persons employed, collector's office.

Deputy collectors.....	1
Deputy collectors and inspectors (two months).....	2
Deputy collectors and inspectors (eight months).....	1
Aggregate.....	4

PORT OF ST. MICHAEL,
Collector's Office, July 1, 1904.

SIR: I have the honor to submit the following summary statement of the transactions of this office for the year ending June 30, 1904, viz:

Vessels entered from foreign ports.....	5
Vessels cleared for foreign ports.....	41
Vessels entered from domestic ports.....	9
Vessels cleared for domestic ports.....	31
Entries of merchandise for duty.....	14
Entries of merchandise free of duty.....	38
Entries for rewarehouse.....	1
Entries from warehouse for consumption.....	1
Entries from warehouse for exportation to adjacent British provinces.....	14
Total number of entries of all kinds.....	68
Entries for consumption liquidated.....	52
Entries for warehouse liquidated.....	11
Certificates of registry granted.....	5
Certificates of enrollment granted.....	2
Licenses for coasting trade granted.....	7
Licenses to vessels under 20 tons granted.....	4
Total number of documents to vessels issued.....	18

Receipts from all sources.

Duties on imports.....	\$1 334.14
Tonnage tax.....	73.23
Official fees.....	126.61
Total.....	1,533.98

Expenses of collection.

Salaries of collectors, deputies, clerks, inspectors, weighers, storekeepers, etc.....	\$4,946.30
Expenses of weighers and gaugers.....	900.00
Rents.....	14.75

Number of persons employed, collector's office.

Deputy collector.....	1
Clerk (for 3 months).....	1
Deputy collectors and inspectors (1 month).....	6
Deputy collectors and inspectors (1 month).....	5
Deputy collectors and inspectors (2 months).....	4
Deputy collectors and inspectors (1 month).....	3
Aggregate.....	20

PORT OF KODIAK,
Collector's Office, July 1, 1904.

SIR: I have the honor to submit the following summary statement of the transactions of this office for the year ending June 30, 1904, viz:

Vessels entered from foreign ports	1
Vessels entered from domestic ports	2
Vessels cleared for domestic ports	5
Entries of merchandise free of duty	4
Total number of entries of all kinds	4
Entries for consumption liquidated	4
Licenses for coasting trade granted	6
Licenses for fisheries granted	2
Licenses to vessels under 20 tons granted	1
Total number of documents to vessels issued	9

Receipts from all sources.

Duties on imports	\$277. 65
Fines, penalties, and forfeitures	120. 00
Miscellaneous customs receipts	5. 50
Total.....	403. 15

Expenses of collection.

Salaries of collectors, deputies, clerks, inspectors, weighers, storekeepers, etc	\$1, 200. 00
--------------------------------------------------------------------------------------------	--------------

Number of persons employed, collector's office.

Deputy collector	1
------------------------	---

PORT OF UNGA,
Collector's Office, July 1, 1904.

SIR: I have the honor to submit the following summary statement of the transactions of this office for the year ending June 30, 1904, viz:

Vessels entered from domestic ports	13
Vessels cleared for domestic ports	9
Entries of merchandise for duty	1
Total number of entries of all kinds	1
Certificates of enrollment granted	1
Licenses for coasting trade granted	1
Licenses to vessels under 20 tons granted	5
Total number of documents to vessels issued	7

Expenses of collection.

Salaries of collectors, deputies, clerks, inspectors, weighers, storekeepers, etc.	\$1, 000
------------------------------------------------------------------------------------	----------

Number of persons employed, collector's office.

Deputy collector	1
------------------------	---

PORT OF UNALASKA,
Collector's Office, July 1, 1904.

SIR: I have the honor to submit the following summary statement of the transactions of this office for the year ending June 30, 1904, viz:

Vessels entered from foreign ports	7
Vessels cleared for foreign ports	5
Vessels entered from domestic ports	20
Vessels cleared for domestic ports	14
Entries of merchandise free of duty	2
Total number of entries of all kinds	2
Entries for consumption liquidated	2
Licenses for coasting trade granted	1
Licenses to vessels under 20 tons granted	2
Total number of documents to vessels issued	3

Receipts from all sources.

Duties on imports	\$96. 06
Fines, penalties, and forfeitures	30. 45
Official fees	30. 12
Total	156. 63

Expenses of collection.

Salaries of collectors, deputies, clerks, inspectors, weighers, storekeepers, etc.	\$1, 969. 17
Rents	120. 00
Total expenses for the month	2, 089. 17

Number of persons employed, collector's office.

Deputy collector	1
Deputy collector and inspector (3 months)	1
Aggregate	2

PORT OF VALDEZ,
Collector's Office, June 30, 1904.

SIR: I have the honor to submit the following summary statement of the transactions of this office for the year ending June 30, 1904, viz:

Vessels entered from foreign ports	1
Vessels entered from domestic ports	13
Vessels cleared for domestic ports	16
Entries of merchandise for duty	1
Entries of merchandise free of duty	5
Total number of entries of all kinds	6
Entries for consumption liquidated	6
Certificates of enrollment granted	2
Licenses for coasting trade granted	6
Licenses to vessels under 20 tons granted	3
Total number of documents to vessels issued	11

Receipts from all sources.

Duties on imports	\$42. 21
Tonnage tax	38. 8
Fines, penalties, and forfeitures	350. 00
Official fees	5. 50
Total	436. 53

Expenses of collection.

Salaries of collectors, deputies, clerks, inspectors, weighers, storekeepers, etc.	\$1, 400. 00
Rents	300. 00
Miscellaneous expenses	251. 60
Total expenses for the month	1, 951. 60

Number of persons employed, collector's office.

Deputy collectors	1
-------------------------	---

PORT OF NOME,
Collector's Office, July 1, 1904.

SIR: I have the honor to submit the following summary statement of the transactions of this office for the year ending June 30, 1904, viz:

Vessels entered from foreign ports	20
Vessels cleared for foreign ports	20
Vessels entered from domestic ports	40
Vessels cleared for domestic ports	39

Entries of merchandise for duty	7
Entries of merchandise free of duty	11
Total number of entries of all kinds	18
Entries for consumption liquidated	18
Certificates of enrollment granted	5
Licenses for coasting trade granted	6
Licenses to vessels under 20 tons granted	5
Total number of documents to vessels issued	16

Receipts from all sources.

Duties on imports	\$1, 929. 26
Tonnage tax	372. 12
Fines, penalties, and forfeitures	50. 00
Miscellaneous customs receipts	125. 00
Official fees	137. 41
Total	2, 513. 79

Expenses of collection.

Salaries of collectors, deputies, clerks, inspectors, weighers, storekeepers, etc	\$2, 664. 98
Expenses of weighers and gaugers	75. 00
Miscellaneous expenses	950. 50
Total expenses for the month	3, 690. 48

Number of persons employed, collector's office.

Deputy collector	1
Deputy collector and inspector (4 months)	1
Aggregate	2

APPENDIX L.

OFFICE OF U. S. SURVEYOR-GENERAL, DISTRICT OF ALASKA,
Sitka, September 14, 1904.

SIR: In compliance with your oral request, I have the honor to furnish you with the following information in regard to the progress being made in the matter of public surveys in Alaska.

Under date of May 27, 1903, the honorable Commissioner of the General Land Office apportioned \$50,000 to Alaska from the appropriation of \$400,000 for the survey of public lands of the United States for the fiscal year ended June 30, 1904, and this office was authorized to issue notices inviting proposals for executing survey of the Copper River base, meridian, and standard lines, also for survey of the Mission Reserves as required by the act of June 6, 1900, and such other surveys as might be called for which the funds allotted would permit.

Invitations were duly issued to the United States deputy surveyors for Alaska for proposals for executing the Copper River surveys, and the bids submitted in response thereto were opened August 13, 1903, and forwarded to the honorable Commissioner of the General Land Office with report and recommendation the following day, and under date of February 26, 1904, award of contract for the survey of said lines was authorized, and on March 22, 1904, the contract was issued.

The mission claims were classified into 12 groups, the claims appearing to be located in the easiest proximity to each other being placed in the same group, each group to be surveyed under a separate contract.

Under date of June 30, 1903, invitations for proposals for executing the survey of mission claims included in said groups were sent out to the deputies. The bids received in response thereto were opened August 15, 1903, and forwarded August 17, 1903, with suitable recommendations to the honorable Commissioner of the General Land Office for his action.

Under date of February 12, 1904, this office was notified by the General Land Office that the bids had been taken up for action, and on the various dates shown on the appended statement contracts were issued for executing the survey of 11 of the groups, authority for awarding contract for surveying one of the groups having not yet been received.

The invitations for proposals provided for a per diem rate for all of the surveys, as previous experience had demonstrated the futility of endeavoring to have them made at the mileage rate allowed by law.

Appended hereto is a statement of the contracts awarded during the fiscal year ended June 30, 1904, describing the surveys provided for, showing their location, and giving the liability under each contract, together with a list of the United States deputy surveyors and United States deputy mineral surveyors for Alaska, and also extract from my annual report of the surveying operations of this office for the fiscal year ended June 30, 1904, which report bears date of July 8, 1904.

Very respectfully,

WM. L. DISTIN,
United States Surveyor-General.

HON. JOHN G. BRADY,
Governor of Alaska, Sitka, Alaska.

List of United States deputy mineral surveyors who have furnished bonds.

Name.	Home address.	Alaska address.
Adams, A. Judson	Seattle, Wash	Valdez, Alaska.
Ashford, Geo. M	Nevada, Iowa	Nome, Alaska.
Baldwin, Geo. E	Washington, D. C.	Valdez, Alaska.
Blake, Arthur G	San Francisco, Cal	Nome, Alaska.
Blakely, J. F	Seattle, Wash	Seward, Alaska.
Brown, Webster	do	Unknown.
Buck, Rufus	do	Dawson, Northwest Territory.
Carter, A. B	Oakland, Cal	Teller, Alaska.
Chapman, W. S	Seattle, Wash	Sitka, Alaska.
Davidson, C. E	Juneau, Alaska	Juneau, Alaska.
Davidson, J. M	Fort Jones, Cal	Nome, Alaska.
Edgerton, H. H., jr.	Tacoma, Wash	Unknown.
Fox, David	Suffern, N. Y	Do.
Garside, Geo. W	Juneau, Alaska	Juneau, Alaska.
George, Martin	do	Sitka, Alaska.
George, Thomas H	do	Juneau, Alaska.
Gurnee, Clinton	San Francisco, Cal	Unknown.
Heinze, Hermann	Chicago, Ill	Solomon, Alaska.
Hill, Lloyd G	Juneau, Alaska	Juneau, Alaska.
Hess, Wm. A	Seattle, Wash	Nome, Alaska.
Hoag, Wm. B	San Francisco, Cal	Kayak, Alaska.
Hubbell, Chas. S	Wrangell, Alaska	Wrangell, Alaska.
Lacey, Albert	San Francisco, Cal	Unknown.
Lacey, Frank H	do	Do.
Lewis, E. F	Piperville, Wis	Nome, Alaska.
Lewis, A. B	Valdez, Alaska	Valdez, Alaska.
Lovell, Saml. L	Skagway, Alaska	Kayak, Alaska.
McPherson, J. L	Seattle, Wash	Unknown.
McQuinn, J. A	Portland, Oreg	Do.
Meals, A. J	Chesna, Alaska	Chesna, Alaska.
Phillipotts, Wm. M	Rodman Bay, Alaska	Rodman Bay, Alaska.
Ruud, Elias	Skagway, Alaska	Skagway, Alaska.
Smith, Norman R	Seattle, Wash	Unknown.
Smith, Warriner E	do	Do.
Stanley, F. D	Spokane, Wash	Do.
States, Henry	Juneau, Alaska	Juneau, Alaska.
Tappan, Charles	Douglas, Alaska	Fairbanks, Alaska.
Thorne, J. F	Portland, Oreg	Unknown.
Whitfield, N. B	Ketchikan, Alaska	Ketchikan, Alaska.
Whitfield, D. S	do	Do.
Week, C. A	San Francisco, Cal	Unknown.
Whittren, J. Potter	Seattle, Wash	Sullivan City, Alaska.
Wilson, C. P	do	Kayak, Alaska.
Williams, Alfred	Treadwell, Alaska	Treadwell, Alaska.
Warren, W. A	Seattle, Wash	Nome, Alaska.

List of United States deputy surveyors who have furnished bonds.

Name.	Home address.	Alaska address.
Anderson, Chas. M.	Seattle, Wash	Resurrection Bay.
Ashford, Geo. M.	Nevada, Iowa	Nome, Alaska.
Adams, A. Judson	Seattle, Wash	Valdez, Alaska.
Baldwin, Geo. E.	Valdez, Alaska.	Do.
Blake, Arthur G.	San Francisco, Cal.	Nome, Alaska.
Barstow, David G.	Oakland, Cal.	Herendeen Bay.
Brown, Webster	Seattle, Wash	Alaska.
Buck, Rufus	do.	Valdez, Alaska.
Davick, L. E.	do.	Dawson, North west Territory.
Davidson, C. E.	Juneau, Alaska	Valdez, Alaska.
Edgerton, H. H., jr.	Tacoma, Wash	Juneau, Alaska.
George, Thomas H.	Juneau, Alaska	Unknown.
George, Martin	do.	Juneau, Alaska.
Gurnee, Clinton	San Francisco, Cal.	Sitka, Alaska.
Garside, Geo. W.	Juneau, Alaska	Unknown.
Hill, Lloyd G.	do.	Juneau, Alaska.
Heinze, Hermann	Chicago, Ill.	Do.
Hubbell, C. S.	Wrangell, Alaska	Solomon, Alaska.
Hesse, Wm. A.	Seattle, Wash	Wrangell, Alaska.
Lascy, Albert	San Francisco, Cal.	Nome, Alaska.
Lascy, Frank H.	do.	Unknown.
Lewis, E. F.	Piperville, Wis.	Do.
Lewis, Alfred B.	Valdez, Alaska.	Nome, Alaska.
McPherson, J. L.	Seattle, Wash	Valdez, Alaska.
Meals, A. J.	Chesna, Alaska.	Unknown.
Phillipotts, Wm. M.	Rodman Bay, Alaska	Chesna, Alaska.
Ruud, Elias	Skagway, Alaska.	Rodman Bay, Alaska.
Smith, J. Henry	Portland, Oreg.	Skagway, Alaska.
Smith, Warriner E.	Seattle, Wash	Unknown.
Tagliabue, Francis	Oakland, Cal.	Do.
Thorne, J. F.	Portland, Oreg.	Do.
Whitfield, N. B.	Ketchikan, Alaska.	Do.
Whitfield, D. S.	do.	Ketchikan, Alaska.
Wilson, Clarence P.	Seattle, Wash	Do.
		Kayak, Alaska.

CONTRACTS.

Contract No. 2, dated March 16, 1904, with Elias Ruud, United States deputy surveyor; liability, \$250. Boundary of Skagway town site and boundary of the reservation therein for a United States court-house.

Contract No. 3, dated March 22, 1904, with A. B. Lewis, United States deputy surveyor; liability, \$11,100. Principal base line: Beginning at or near Stuck Mountain, about 12½ miles southerly from Copper Center; approximate latitude, 61° 57' north; longitude, 146° 30' west; at initial point and corner to be established for townships 1 north and 1 south, ranges 1 east and 1 west, Copper River base and meridian; thence east, between townships 1 north and 1 south, through ranges 1 and 2 east; thence west from said initial point, between townships 1 north and 1 south, through range 1 west. Principal meridian: From initial point north, between ranges 1 east and 1 west, through townships 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12. Third standard parallel north: From corner to townships 12 and 13 north, range 1 east and 1 west, east through ranges 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12 east. Third guide meridian east: From corner to townships 12 and 13 north, ranges 12 and 13 east, north between ranges 12 and 13 east, through townships 13, 14, 15, 16, 17, and 18 east.

Contract No. 4, dated April 15, 1904, with F. H. Lascy, United States deputy surveyor; liability, \$1,350. Swedish Evangelical Mission at Yakutat; Greek Church Mission at Nutehek; Greek Church Mission at Odiak; Greek Church Mission at Tatlitak; Greek Church Mission at Kanikluk; Greek Church Mission at Chaniga.

Contract No. 5, dated April 15, 1904, with F. H. Lascy, United States deputy surveyor; liability, \$3,600. Greek Church Mission at St. Paul Harbor, 9 tracts; Greek Church Mission at Wood Island, 2 tracts; Baptist Mission at Wood Island, 1 tract; Greek Church Mission at Spruce Island, 3 tracts; Greek Church Mission at Eagle Harbor, Kodiak Island, 1 tract; Greek Church Mission at Three Saints, Kodiak Island, 1 tract; Greek Church Mission at Aetalik, Kodiak Island, 1 tract; Greek Church Mission at Pokrofsky, Kodiak Island, 1 tract; Greek Church Mission at Akeok, Kodiak Island, 2 tracts; Greek Church Mission at Karluk, Kodiak Island, 2 tracts; Greek Church Mission at Ongashak, 2 tracts; Greek Church Mission on the island and in the village of Afognak, 5 tracts; Greek Church Mission on the island and in the village of Douglas, Shelikof Strait, 2 tracts; Greek Church Mission in the village of Katmai, Shelikof Strait, 2 tracts; Greek Church Mission in the village of

Wide Bay, 2 tracts; Greek Church Mission in the village of Wrangell (west of Kodiak), 2 tracts.

Contract No. 6, dated April 16, 1904, with H. Heinze, United States deputy surveyor; liability, \$2,765. Greek Church Mission in the village of Belkofsky, 3 tracts; Greek Church Mission in the village of Sannak, 2 tracts; Greek Church Mission in the village of Protassof, 2 tracts; Greek Church Mission in the village of Metrofan, 2 tracts; Greek Church Mission on island of Peregrebny, 2 tracts; Greek Church Mission on island of Unga, 2 tracts; Methodist Episcopal Mission on Unga Island, 1 tract.

Contract No. 7, dated April 16, 1904, with H. Heinze, United States deputy surveyor; liability, \$3,870. Roman Catholic Mission at St. Michael, 1 tract; Roman Catholic Mission at Nome, 2 tracts; Greek Church Mission on the island of St. Michael, 2 tracts; Protestant Episcopal Mission at Nome, 1 tract; Reindeer Station at Nome, 1 tract; Swedish Evangelical Mission in Unalaklik, 1 tract; Reindeer Station in Eaton, 1 tract; Congregational Mission at Cape Prince of Wales, 1 tract; Reindeer Station at Teller, 1 tract; Reindeer Station at Rodney, 1 tract; Swedish Evangelical Mission at Golofnin Bay, 1 tract.

Contract No. 8, dated April 18, 1904, with C. S. Hubbell, United States deputy surveyor; liability, \$1,120. Roman Catholic Mission at Wrangell; Presbyterian Mission at Wrangell; Presbyterian Mission at Saxman; Presbyterian Mission at Howkan (Jackson); Quaker Mission at Kake; Protestant Episcopal Mission at Ketchikan.

Contract No. 9, dated April 18, 1904, with Elias Ruid, United States deputy surveyor; liability, \$1,275. Russian Greek Church, lots 2 and 3, block 24, Juneau; Russian Greek Church Cemetery at Juneau, 1 tract; Roman Catholic Church, 2 small tracts at Juneau; Roman Catholic Church, 3 tracts on Douglas Island; Protestant Episcopal Church, 2 tracts at Juneau; Roman Catholic Church at Skagway, 1 tract; Presbyterian Mission at Haines, 1 tract; Russian Greek Church Mission at Douglas City, 1 tract; Presbyterian Mission at Hoonah, 1 tract; Russian Greek Church Mission at Hoonah, 1 tract; Russian Greek Church School and Cemetery at Killisnoo, 2 tracts.

Contract No. 10, dated April 19, 1904, with C. E. Davidson, United States deputy surveyor; liability, \$4,150. Roman Catholic Church at Eagle, 2 tracts; Presbyterian Mission at Eagle, 1 tract; Protestant Episcopal Mission at Anvik, 1 tract; Protestant Episcopal Church at mouth of Tanana River, 1 tract; Protestant Episcopal Mission at Rampart, 1 tract; Protestant Episcopal Mission at Minook, 1 tract; Protestant Episcopal Mission at Fort Yukon, 1 tract; Protestant Mission at Circle City, 1 tract; Roman Catholic Mission at Nulato, 1 tract; Roman Catholic Mission at Koserefski (Holy Cross), 1 tract; Russian Greek Church Mission at Ikogmut, 1 tract; Roman Catholic Mission at Shageluk, 1 tract; Roman Catholic Mission at St. Joseph (Akularak), 1 tract.

Contract No. 11, dated April 19, 1904, with C. E. Davidson, United States deputy surveyor; liability, \$1,375. Catholic Mission at Sitka, 1 tract; Presbyterian Mission at Sitka, 2 tracts; Russian Greek Mission at Sitka, 20 tracts.

Contract No. 12, dated April 22, 1904, with A. Lasey, United States deputy surveyor; liability, \$2,870. Russian Greek Church Mission in the village of Kenai, 2 tracts; Russian Greek Church Mission at Ninilchik, 2 tracts; Russian Greek Church Mission at Seldovia, 2 tracts; Russian Greek Church Mission at Alexandrovsk, 2 tracts; Russian Greek Church Mission at Tyoonok, 2 tracts; Russian Greek Church at Shushitna, 3 tracts; Russian Greek Church Mission at Knik, 3 tracts; Russian Greek Church Mission at Kustatan, 3 tracts.

Contract No. 13, dated May 7, 1904, with Webster Brown, United States deputy surveyor; liability, \$6,090. Russian Greek Church Mission in the village of Nushagak, 6 tracts; Russian Greek Church Mission on bank of Nushagak, 1 tract; Russian Greek Church Mission in the village of Ekuk, 2 tracts; Russian Greek Church Mission at Pogugvik, 2 tracts; Russian Greek Church Mission at Ugashak, 2 tracts; Russian Greek Church Mission at Koggiung, 2 tracts; Russian Greek Church Mission at Iliamna, 2 tracts; Russian Greek Church Mission at Kasanak, 2 tracts; Russian Greek Church Mission at Severskoi, 2 tracts; Russian Greek Church Mission at Kvichak, 2 tracts; Russian Greek Church Mission at Kuskokwim, 2 tracts; Roman Catholic Mission at Oknagamut, 1 tract; Moravian Mission at Carmel, 1 tract; Moravian Mission at Bethel, 1 tract; Moravian Mission at Ogavik, 1 tract; Moravian Mission at Togiak, 1 tract; Moravian Mission at Quinchaha, 1 tract; Roman Catholic Mission at Cape Vancouver, Nelson Island, 1 tract.

Contract No. 14, dated May 7, 1904, with C. Gurnee, United States deputy surveyor; liability, \$5,500. Russian Greek Church Mission at Attu Island, 2 tracts; Russian Greek Church Mission at village and Island of Atka, 2 tracts; Russian Greek Church Mission at St. Paul Island, 4 tracts; Russian Greek Church Mission, St.

George Island, 2 tracts; Presbyterian Mission at St. Lawrence Island, 1 tract; Presbyterian Mission at Point Barrow, 1 tract; Protestant Episcopal Mission at Point Hope, 1 tract; Friends Mission at Kotzebue Sound, 1 tract.

Contract No. 1, dated April 22, 1904, with E. F. Lewis, United States deputy surveyor; liability, \$800. Boundary lines of the town site of Nome.

EXTRACT FROM REPORT OF UNITED STATES SURVEYOR-GENERAL DATED JULY 8, 1904.

On the 14th ultimo this office submitted estimate of funds necessary to be appropriated for the surveying service in this district for the fiscal year ending June 30, 1906.

The amount estimated for extending the lines of public surveys aggregates \$120,000. That the estimate was made along conservative lines the following explanatory note which accompanied it will show:

"There are about 400,000,000 acres of unsurveyed public land in Alaska. That a liberal per cent of this vast area is adapted to agriculture of one sort or another is no longer a matter of conjecture, and since the act of March 3, 1903, permitting homesteads to be taken in advance of the extension of the public surveys, homeseekers and stock raisers have been making inquiries concerning the most desirable localities for farming and pasturing stock.

"The act above mentioned contains generous provisions for settlers in this district, but if it is not supplemented with liberal appropriations for the survey of the public lands within its limits, its purposes will be largely negated.

"Under the provisions of that act anyone who is qualified to make entry of public land is entitled to a homestead of 320 acres. Permission is given to initiate such claims prior to the extension of the lines of public survey by filing a description of them with the recorder of the recording district in which they are situated; but if at the expiration of the required time in which to 'prove up' the lines of public surveys have not been extended so as to include it, the claimant, in order to procure a patent for the land must have an official survey made of the claim at his own expense. As the cost of a survey is no small item, and settlers generally can not well afford such an outlay, the burden that an expense of this kind would involve should be averted if possible.

"That there will be many homesteads taken under said provisions of law there can be but little doubt. Although, as hereinbefore stated, the law does not require that a settler shall have his claim surveyed until five years after its initiation in order to procure patent, nevertheless several surveys of this class of claims have been submitted to this office already. These, however, are probably only a small fraction of the number which have been filed for record with the recorders of the various recording districts; but as it is not required that the record of such claims be furnished this office it has no means of knowing how many have been located and recorded.

"A contract has been made for surveying 198 miles of base, meridian, and standard lines in the Copper River Valley. These are primary lines with which to connect township and subdivisional surveys in that region of country. They will be useful only for that purpose and therefore should be supplemented by the extension of township boundary lines so soon as they are completed. Department regulations provide that the subdivisional survey of a township will be authorized only in response to the application of at least three bona fide settlers therein. In making such application the settlers are required to designate the township in which their claims are situated, and also, as nearly as practicable, the sections within the township. If only the primary lines to govern such surveys have been established over a region of country it is impracticable for a settler to determine, or even intelligently conjecture, the number of the township and range in which his claim will be, and consequently provision should be made for surveying township boundaries over areas in which settlers are located, or are likely to be in the near future.

"There are other sections that contain arable lands for the survey of which it will be necessary to establish independent bases and meridians with which to connect township and subdivisional surveys—the configuration and topographic features of this district rendering it impracticable to connect the surveys in all parts of it with one principal base and meridian. The more prominent of these localities are in Kenai Peninsula and on Kodiak Island. There is said to be a large area of good agricultural land in the above-mentioned peninsula upon which settlements are being made, and Kodiak Island contains fine pasture lands which are beginning to be used by stockholders for grazing purposes. Provision should be made for establishing meridians and bases and for extending township lines in those localities. There

are also still other localities where it will be necessary to establish short independent base and meridian lines in order to accommodate settlers, especially on the islands of Alexander Archipelago and the Aleutian Islands.

"As stated last year, there are many tracts of land in Alaska which are reserved by Executive orders or otherwise for the use of the various Departments of the Government. As many of these tracts are set aside merely by description of metes and bounds, the deflection of the theoretical lines made from uncertain meridians without corner monuments to mark the angles, it is impracticable to determine just what land is reserved. As these reserves are generally at or adjoining centers of population, it is especially desirable that they be more definitely delimited as uncertainties of boundaries, inexactly described, without corner monuments or line marks to identify them, leads to confusion and in some cases retards improvements. Provision ought to be made and authority given for surveying all of these reserves, so that their exact locus and extent may be apparent on the ground and of record in this office.

"Proposals for executing surveys in this district show that the cost of surveying will be much greater in it than in other districts. The reason for this is because of the higher wages it is necessary to pay assistants, the greater cost of transporting supplies, the shortness of the surveying season, and the unfavorable climatic conditions for using the surveying instruments which prevail in many localities during the summer months, especially in regions bordering the coast, the sun being obscured much of the time by fog or clouds."

The area of this surveying district is many fold larger than any other in the United States, and it may be safely said that its natural resources, in most lines, are also greater in the same proportion. Notwithstanding the development of these resources are mostly in their incipency, the outlook is promising. As development work progresses and explorations are carried into new fields its latent possibilities become more apparent. The period of uncertainty is past, and advancement promises to be more rapid henceforth. Provision has been made and preparations consummated for beginning the system of public-land surveys in this district. As tabular statement "A" of this report shows contracts—the aggregate liability of which exceeds \$46,000—were awarded during the fiscal year for surveying public lands and mission claims, and others will probably be awarded in the near future. This is only the beginning of what promises to be an active area of surveying operations in Alaska.

APPENDIX M.

[Transactions of the American Institute of Mining Engineers.]

THE INVESTIGATION OF ALASKA'S MINERAL WEALTH.^a

By ALFRED H. BROOKS.

(Lake Superior meeting, September, 1904.)

The developments of the last five years have shown that Alaska, as a field for mining, stands in the first rank among the possessions of the United States. Its annual gold output is now about \$8,000,000. It produces silver, copper, and coal in commercial quantities, and its recently discovered tin and petroleum promise to become important products. Concurrent with the gradual development of this wealth, the mining public has ceased to regard the territory simply as an arctic province where a few placer miners struggle with adverse conditions to secure a grubstake or a modest fortune. Of late years there has been a large influx of capital to investigate its mineral resources, but in its area of nearly 600,000 square miles there still remain large unexploited and little known fields.

This work of investigation has been carried on under adverse conditions, and reflects credit on all who have shared in it, whether prospectors, mining engineers, or geologists. It is the purpose of this paper to outline briefly what has been and is being accomplished toward furthering the knowledge of Alaska's mineral wealth, and in this connection to present a brief history of the operations of the United States Geological Survey in the territory. A list of the publications of the Geological Survey, which pertain to Alaska, will be presented as an appendix in the hope that it may prove useful to those who are interested in the mining of this northern province.

During the Russian occupation of Alaska, from 1783 to 1866, but little attempt was made to delineate its geographic features or to study its geology and mineral

^aPublished by permission of the Director U. S. Geological Survey.

resources. The Russian-American Company, which long held control of the territory, was entirely absorbed in the exploitation of its fur trade, without concern for its other possibilities. During the last decades of the Russian régime, however, the fur company was compelled by royal ukase to choose its administrative head from among naval officers, and some of these governors, notably Wrangell and Tebenkof, were men of scientific attainments and interests, under whose administration the finances suffered somewhat, but the cause of exploration was materially advanced by attempts at charting the coastal region, and even by an occasional expedition into the interior. From these surveys, supplemented by the efforts of navigators and explorers of various nationalities—chiefly English—was obtained a fairly complete knowledge of the entire coast line of Alaska, and some geographic data concerning the lower courses of the Yukon, Kuskokwim, and Copper rivers. Many of the expeditions included naturalists who made geologic observations and palæontologic collections, which eventually found their way to various scientific institutions of Europe; but, at best, the results were merely fragmentary. It was the policy of the Russian-American Company to discourage the development of any mining interests within the territory, out of a belief that mining would be inimical to the fur-trading interest. When, however, the administration of the naval governors combined with the decrease of the fur-bearing animals to bring about a diminution of revenues, an abortive search was made for mineral wealth. A mining engineer by the name of Doroshin was dispatched to Sitka in 1848, and spent the succeeding two years in examining the islands thereabouts and in the Cook Inlet region; and he did, in fact, make the first discovery of gold in Alaska. But as the returns from nearly a year's work of some forty men yielded only a few ounces of placer gold, obtained near Cook Inlet, he reported adversely as to the presence of gold in commercial quantities, thus terminating the only Russian attempt at gold mining in Alaska. The current reports of evidences of Russian placer operations in various mining districts have so far proved to be without foundation.

Doroshin did, however, recommend the mining of coal at Cook Inlet, and the demand created by the gold discoveries in California led to the establishment of such an enterprise on Port Graham in 1852, but without commercial success. The Russians made no other attempt at developing mineral resources, unless the shipment of ice to California, carried on in a desultory manner for some years, can be regarded as such.

The Russian traders had pushed their way a thousand miles up the Yukon, and had explored the lower stretches of the Kuskokwim and Copper rivers; but previous to 1865 little was known of the interior of what was then called Russian America. In that year it was reported at Sitka that American prospectors had found gold on the Stikine River, and an expedition was dispatched to verify the rumor and establish the International Boundary. With the party went Prof. W. P. Blake as geologist, among the first of Americans to investigate the geology of Alaska. From the east the interior had been penetrated by the traders of the Hudson Bay Company, who, following the routes marked out by such explorers as Franklin and Mackenzie, had reached the Yukon in 1849; but they, too, were adverse to the development of mining industries and made no attempt to investigate mineral resources. In 1865 the Western Union Telegraph Company organized a survey of northwestern America to find a route through Canada to Bering Strait, in order to connect by cable with a line crossing Siberia from Europe. The success of the Atlantic cable led to the abandonment of the project, but the investigations of the scientists and explorers of the expedition were of lasting importance; though, except for the work of Dr. Wm. H. Dall, the most prominent member of the parties, they were solely of geographic interest. Dall continued his work in Alaska as a member of the Coast Survey after the transfer of the territory.

In 1866 Russia ceded her North American possessions to the United States for the sum of \$7,200,000, and Russian America became Alaska. The interest awakened by the addition of this vast domain was only short-lived among the mass of the American people, the majority of whom regarded it as an arctic province possessing no value outside of the fur trade. Few, if any, dreamed that this isolated possession was destined to become a great mineral producer, and that in the course of one generation its annual gold output would exceed by over a million dollars the price paid for the entire territory.

The apathy of the public and the neglect of the executive and legislative arms of the Government relegated the new possession to temporary oblivion. For twenty years after Alaska passed under the control of the United States, systematic surveys were limited to its coast line. Explorations in the interior were fostered by the various branches of the Government and by private enterprise, but only intermittently

and without definite purpose. Thus, while there developed gradually a somewhat more exact geographic knowledge of our new territory, no light was thrown on its mineral resources. But while the Government's interest in this virgin field lay dormant it soon attracted the ever-active American prospector. As already noted, he found gold on the Stikine even before the purchase of Alaska. Following this came the discovery of auriferous quartz near Sitka in 1879, and of gold in the Juneau placers in 1880. It was the development of the latter which led to the finding of the gold-bearing lodes that have made Juneau the foremost mining camp of Alaska. The restless pioneers, soon finding means to overcome the opposition of the natives to the white men penetrating the interior, made their way across the Chilkoot Pass, and while descending the Lewes River came upon more gold. In 1886 the gold placers of the Fortymile region were discovered, and the discovery of other districts followed rapidly during the succeeding decade.

These Yukon pioneer miners were dependent entirely upon their own resources, formulated and executed their own laws, and were practically ignored by the Territorial and Federal governments. It is largely to their perseverance and pluck that the country now owes its millions of revenues from the Alaskan placer fields. Not until 1895 did Congress awake to the importance of examining into Alaska's mineral wealth. In that year \$5,000 was appropriated for an investigation of its coal and gold resources by the United States Geological Survey; and, small as the sum was—considering that the territory to be investigated was two and one-half times the size of Texas and that the field of investigation lay two or three weeks' journey from Pacific coast ports—this was the first organized attempt in this direction.

The party which was sent out spent the summer of 1895 in an extensive examination of the Pacific coastal belt, and accumulated valuable information regarding the distribution of the coal-bearing rocks and the character of the gold deposits.

In the following year a similar appropriation was made, and a party of three was sent inland to study the placer districts along the Yukon River. This long journey, at a time when few had penetrated to the Yukon gold fields, was accomplished at the expense of considerable hardship, the party succeeding in visiting all of the producing gold camps of the Yukon, among which were numbered at that time Fortymile, Birch Creek, and Minook districts. The investigation could not be continued in 1897 because the appropriation bill failed to pass in time to make the funds available in this distant province. It was the discovery of the Klondike gold placers in 1896 that opened people's eyes to Alaska's importance, and, as the facts became disseminated during the following two years, public opinion on this point rapidly changed. There was then pressing demand for reliable information about the north-western part of the continent. This was met on the part of Congress in 1898 by appropriations for various bureaus for Alaskan investigations to be made by the Government; and the amount to be expended by the United States Geological Survey for this purpose was increased to \$20,000. Under this latter appropriation the United States Geological Survey began the series of systematic surveys in Alaska, which it has continued to the present time.

The task before it was not an easy one. Here was an area of from 500,000 to 600,000 square miles, of which little but the coast had been surveyed, and very large areas were almost unexplored. The province to be investigated was far distant, and the season of operations limited to the summer months. Moreover, the work must be so conducted that the results should be available at the earliest possible date. No plans which required more than one season for their execution could be considered, for there was an urgent demand, on the part of the thousands who were working blindly in this northern region, for immediate information. It is plain that these conditions could not be met by planning detailed and final surveys, which, while of the utmost importance to a mining community, must be preceded by explorations and reconnaissances. Moreover, the fact that the work had to be begun within a month from the time the appropriation bill passed left little time to formulate plans and organize parties. Fortunately, the United States Geological Survey was able to draw on a corps of geologists and topographers who had been trained in other fields for work of this character.

It was decided to send four parties to Alaska; one to map an area lying close to the new Klondike placer fields, and the others to conduct extensive explorations. One of the latter made a reconnaissance of the Sushitna River valley and crossed the divide to the Cantwell, mapping the topography and geology as far as the means would permit, and determining the position and altitude of Mount McKinley. Something was learned regarding the distribution of the placers in the Sushitna Valley, and the source of the gold was traced to small quartz seams in metamorphic slates.

Another expedition ascended the Skwentna from Cook inlet, portaged along the

Alaskan range to the headwaters of the Kuskokwim, and following this great river to the sea, then turned eastward and, partly along the coast and partly inland, made its way back to the Pacific coast, completing in four months a journey of more than 1,400 miles.

The other party, which was distinctly topographic, made its way inland along the same route and mapped some 2,000 square miles lying chiefly in the placer district of the Fortymile region.

On its way inland, the third party followed the then much-traveled Klondike route as far as the mouth of the White River, ascended that for about 100 miles, then crossed to the waters of the Tanana by portage, and followed that river to its mouth. The report of the topographic and geologic results of this expedition contained suggestions in regard to the distribution of placer gold which have been verified by the recent discoveries in that field.

In that same year the United States Geological Survey was enabled, by the courtesy of the War Department, to assign two of its geologists to accompany army expeditions into the interior of Alaska. The one conducted explorations in the Copper River basin, while the other made its way inland from Cook inlet.

At the close of the season of 1898 the reports of these different reconnaissances and exploring expeditions not only increased the geographic knowledge of Alaska, but contained much practical information in regard to routes, trails, and timber, as well as to the geology and mineral resources.

In 1899 the investigation was continued by two expeditions, one across the country from Pyramid Harbor on Lynn Canal to Eagle City on the Yukon; and the other from the Yukon north to the Koyukuk. The first made its way along the northern front of the St. Elias range, across the headwaters of the White to the Tanana, and thence, turning northward, reached the Yukon by a route through the Fortymile placer district. On the way a hasty examination was made of the Porcupine placer district and Fortymile region. What was still more important, it was definitely established that copper occurred in placers at the headwaters of the White and Tanana rivers, and the metal was traced to its bed-rock source.

The second party ascended the Chandlar, a northerly tributary of the Yukon, and reaching the basin of the Koyukuk by portage, followed that river to its mouth, giving special attention to the little-known placer fields of the region.

Toward the close of the season of 1899 the two parties combined and utilized the few remaining weeks in visiting the newly discovered gold deposits of Nome, thus gaining material to publish a preliminary report on this important placer field in the following winter. The wide circulation of this report instances the value of early publication of results.

The increase in gold output of the Seward Peninsula from \$15,000 in 1898 to more than \$2,000,000 in 1899 excited an interest which rivaled that shown in the Klondike. From the 20,000 people who went north during the summer of 1900 there arose an urgent demand for topographic surveys and information in regard to the mineral resources of the district. To meet these new developments the purely exploratory work of the Survey was set aside for the time being, while activities were directed to areal mapping of the newly discovered fields. About half of the Alaskan forces were concentrated in the Seward Peninsula. These in the course of one season not only completed a contoured map of an area covering more than 6,000 square miles, but made a personal investigation of every placer district and practically every creek of the southern half of the peninsula, as a result of which a report was issued the following year showing the distribution of the gold-bearing gravels, the source of gold, and its mode of occurrence. The question of bonanzas in the placers was the subject of special discussion. The theories advanced as to their probable origin have in most cases been confirmed by later developments in the region.

The discoveries in this season, of workable placers in the high bench, tundra, and elevated beach gravels of the Seward Peninsula, furnished further proof of the value of geologic work; for the report of the previous year, in calling attention to these gravel deposits, then entirely unprospected, had dwelt upon the probability of their being auriferous. A similar instance was the discovery by a member of the Survey of stream tin in the York region.

In the Copper River region there had been seemingly important discoveries of copper, and an urgent demand came from capitalists, mine owners, and engineers for more authentic data. To meet this demand a large force was dispatched to the new district and an area of some 5,000 square miles was mapped topographically on a scale of 4 miles to the inch. Within this belt a geologic reconnaissance map was made and the general occurrence of the copper-bearing rocks was determined, while individual prospects were examined as far as possible. The report which resulted from this work was of such a character that mining engineers had definite basis for making

preliminary estimates on the cost of railroad construction, as well as considerable data on the probable extension and value of the copper deposits. The same season a more hasty examination was made of the copper deposits of Prince Williams Sound.

In 1901 the work in the Seward Peninsula was extended to the northward by a reconnaissance survey of about 5,000 square miles. Some additional information was obtained regarding the distribution of stream tin, and considerable areas were examined in sufficient detail to enable a fairly definite statement to be made regarding the presence and absence of placer gold. A most valuable feature of the work, in the light of after-developments, was the outline of some granite intrusive, for it is along the contact of the sediments and granites that tin deposits have been discovered.

The same year witnessed very important explorations in northern Alaska. One party, which had to travel 1,200 miles by dog teams in midwinter, made a reconnaissance survey from the Yukon northward to the Arctic Ocean, traversing a mountain range which, up to that time, had never been visited by white men, and at the close of the season contrived a hasty examination of the Cape Lisburne coal fields. Another survey, carried from the Yukon to Kotzebue Sound, has proved of particular value to the prospector since the discovery of placer gold within the area surveyed.

During this season the Ketchikan mining district of southeastern Alaska also was subjected to a preliminary examination. Nearly 200 prospects were visited and reported upon, and a geologic reconnaissance map was made of an area covering about 2,000 square miles.

To meet the growing demand for information in regard to the Copper River basin, two parties were sent into this district in 1902. These, besides completing the reconnaissance topographic and geologic mapping of the basin, extended the work both to the north and south. A detailed study was made of the Chistochina gold fields, as well as of the northern copper field, which had received a preliminary examination in 1899.

The growing importance of the Yukon placer fields and the consequent traffic on the Yukon River had led to a number of only partially successful attempts to mine coal for local use in that field. With the idea of furthering these interests, a party was dispatched to make a special study of the coal. The results showed that there were large areas of coal-bearing rocks on the Yukon, and that while the upper river coals were, for the most part, of lignitic character, some of those along the lower river, which are of a lower geologic horizon, can be graded as semibituminous, and should afford a local fuel supply.

Hand in hand with these special geologic investigations, geographic mapping has proceeded by a series of reconnaissance surveys. In 1902 an exploring party made its way from the head of Cook Inlet through the Alaskan range, along its northwestern base to the Tanana River, and thence to the Yukon, completing an 800-mile journey in three months and a half. Yet topographic surveys were maintained throughout, and much was learned of the geology, as well as of the mineral resources. An area of coal outlined on one of the southern forks of the Tanana, though of no immediate importance, has possible future value, for it lies near the route of a proposed railway from Cook Inlet to the Yukon.

The demand in southeastern Alaska, where large capital has been invested in mining plants, is for detailed geologic and topographic maps. But the great cost of such surveys unfortunately prohibits their extension with the rapidity required by the mining developments. The beginning was made in 1902, by mapping an area of about 80 square miles in the vicinity of Juneau on a scale of 1 mile to the inch.

With improved transportation facilities, and better organization of the work, came a material decrease in cost, which enabled the United States Geological Survey to send seven parties in 1903. To one of these was assigned the task of completing the reconnaissance mapping of the Seward Peninsula, of which there are fairly accurate maps. At the same time an examination of the newly discovered placer fields in the northeastern part of the peninsula was made.

The general policy of the Survey is to keep in touch, as far as the appropriations will allow, with all mining interests, and to publish from time to time supplementary reports based upon new data thus obtained. Thus, when the rapid developments in the older districts of the Seward Peninsula created a demand for further geologic investigation, a party was sent to make a tour of nearly all the important mining camps in the region. An interesting result of this work was the tracing of the tin to its bed-rock source. Though it is too soon to predict commercial importance for this new discovery, yet all indications are sufficiently favorable to stamp this as an excellent example of the importance of scientific investigation in a new mining district, and a most striking case of the practical value of geologic work.

While every effort has been made to keep abreast with conditions in the more important mining camps in Alaska, at the same time the lesser ones have not been

neglected. The Yukon placer fields have been steadily developing, though at a much slower pace than those in the Seward Peninsula. To meet the great demand for accurate maps and information, two parties were sent into the Yukon country in 1903; one for a topographic survey extending from Eagle City to the Fairbanks district, and thence northward to Circle City; and the other to subject the placer fields of the Forty-mile and Birch Creek regions to a reexamination, and also make some preliminary studies in the newly discovered Fairbanks district.

The work of the previous year had thrown some light upon the occurrence of the coal on the Yukon, but important stratigraphic problems still remained to be solved, which, while they had no immediate economic value, were still of sufficient practical importance to deserve a share in an investigation of the mineral resources. With this in view, another party was sent down the Yukon in 1903, which obtained still more evidence in regard to the age and distribution of the coal.

Mention has been made of the detailed topographic survey of the region lying adjacent to Juneau. This district came in for geologic investigation in 1903, and the reconnaissance mapping was continued over an additional area extending from Port Houghton to the Porcupine gold district. The former received a detailed examination, and by careful study of its important mines the relations of the ore bodies were determined and important conclusions reached in regard to their distribution.

While the interest in Alaska centers chiefly in its placer mines, yet during the past three years considerable prospecting for petroleum has gone on. The successful boring of a well in the Controller Bay region and the favorable indications in the Alaskan Peninsula led the United States Geological Survey to dispatch a party in 1903 to make a preliminary examination. Reconnaissance surveys in the Controller Bay region and in the oil fields of Enochkin and Cold bays on the Alaskan Peninsula yielded much data as to the geologic conditions of the petroleum distribution. While these studies were only preliminary and can not be considered conclusive, they at least show that these districts give promise of producing oil and that drilling wells can be considered a legitimate operation. Furthermore, it was definitely ascertained that there are workable coal seams of a semianthracitic character in the neighborhood of Controller Bay. As this coal is of the highest grade yet found on the Pacific coast, it promises, in spite of the somewhat adverse conditions for shipping, to become an important resource of the Territory.

In the foregoing an attempt has been made to outline briefly the character of the work which has been performed for the investigation of Alaska's mineral resources. While it is believed that the results are of practical value, a view which is borne out by the strong support that the United States Geological Survey has received from the mining men of Alaska, yet it is only too evident that much remains to be done, and that all of the investigations so far are only preliminary. It will be many years before exhaustive studies can be made, such as are now being carried on in many of the mining districts of the United States.

In July, 1903, the Alaskan surveys, which had been at first a subordinate function of the geologic and topographic branches of the United States Geological Survey, were organized as a distinct division, entitled, "The division of Alaskan mineral resources," and its administration was vested in a geologist in charge. The force of workers, which in 1899 numbered only two geologists and two topographers, now includes ten geologists with two assistants and three topographers with three assistants, besides an additional field force of some thirty men.

It is difficult at the present day to conceive how little was known of Alaska previous to 1898. The expeditions of earlier years had contributed something to the knowledge of the country drained by the Yukon, and more or less indefinite information was available in regard to a few other parts of Alaska, but the country as a whole was practically unknown. Many of the most important geographic features have been added to the map by the reconnaissance and exploration surveys of the years from 1898 to 1903, during which the principal mountain ranges have been outlined and the drainage areas defined.

A most important function of the Alaskan surveys has been the production of contoured maps, the value of which can not be overestimated. There are demands for them from prospectors, engineers, and capitalists, who find in them an essential aid toward the development of the country along any line. They indicate routes of travel to the prospector and explorer, railway and wagon routes to the locating engineer, and possible sources of water supply to the mine operator. During the six years that systematic work has been carried on, an area of between 90,000 and 100,000 square miles has been covered, representing about one-sixth of the total area of Alaska.

While the aim of the work has been to investigate mineral resources, this has, of course, necessitated geologic studies, for it is only through the medium of a thorough

geologic knowledge that the facts gathered in regard to the value and distribution of ore deposits can be practically and scientifically interpreted. From year to year this fundamental knowledge is growing, and in the course of time the geologic history of the Territory will be deciphered. In fact, much is already known of the general succession and distribution of the many bed-rock formations.

The studies of the bed-rock geology contributed by each expedition are resulting in an accumulation of material which becomes increasingly valuable in tracing the distribution and origin of deposits having economic importance. The occurrences of such deposits is but a minor feature of the general geology, but the most important factor in the development of the country. The Survey's function is to study the relation of the two, and, in the course of these studies, results have often been achieved of immediate practical importance to the people of Alaska.

In the preceding paragraphs of this paper reference has been made to the various classes of economic investigations which have been carried on in Alaska. This work is but fairly begun, for nearly all of the examinations have been of a most hasty and preliminary character. It has been the aim to establish general relations and to give the mining public the benefit of these by early publications of reports, leaving detailed studies to future years when developments will prove such as to warrant their cost. By pursuing this policy the Survey in the course of the past six years has been able to obtain some information from every mining camp in Alaska, and this has, for the most part, been promptly published and widely disseminated. Recently Congress has manifested its interest in Alaskan mining affairs by increasing the appropriation for investigation of the mineral resources to \$80,000. This sum will make it possible to push the work at a pace more commensurate with its importance. The Survey's aim will be to keep abreast, if not in advance, of mining developments.

The large investments made in water-supply ditches, pumping plants, and mining machinery in the Seward Peninsular has shown the need of detailed surveys in this field. Though mine operators have many times been witnesses to the value of the present reconnaissance map, the magnitude of the mining operations now necessitates a demand for detailed maps. Surveys for this will cost from five to ten times as much as the preliminary ones, but when completed will give the mine operator a thoroughly reliable basis for his engineering work. While this will constitute the only immediate value of the contour maps, yet they will prove of no less importance as a base for detailed geologic studies. These latter will not only determine the distribution of placer gold, but will throw light on the much-mooted question as to the presence or absence of commercially valuable auriferous veins. There is a like demand for surveys in the Yukon placer field, but here developments have not yet advanced so far as to outstrip the usefulness of reconnaissance maps. These should, however, be pushed to early completion, after which should follow detailed mapping of areas containing placers which prove to be of high commercial value.

In the Cook Inlet placers the surveyor may see another field which demands attention. It has been the scene of such mining activity as to warrant topographic and geologic surveys, but because of the urgency of other work it has up to the present time been almost neglected.

Because of the great cost involved, the progress of detailed surveys in southeastern Alaska must of necessity be rather slow; but it will be possible within the course of a few seasons to complete the reconnaissance mapping. This, in conjunction with a preliminary study of the occurrence and association of the ore-bearing horizons, should yield results of value to the prospectors.

The heavy capital which is being invested in the oil fields on the Pacific coast of Alaska, single this out also as a region needing further attention. Hand in hand can go a study of the coal fields of this district which give promise of large commercial importance.

The above suggestions do not by any means exhaust the possibilities for effective geologic and topographic work, but will indicate the lines along which there is the most pressing demand.

UNITED STATES GEOLOGICAL SURVEY PUBLICATIONS ON ALASKA.

1891.

Account of an Expedition to the Yukon Valley in 1889. Russell, I. C. In Eleventh Annual Report U. S. Geological Survey, pt. 1, 1891, pp. 57-58. Extract from Professor Russell's complete report in Bulletin Geological Society America, vol. i, 1880, pp. 99-162.

Account of an Expedition to the Vicinity of Mount St. Elias in 1890. Russell, I. C. In Twelfth Annual Report U. S. Geological Survey, pt. 1, 1891, pp. 59-61. A full

report of this expedition was published in *National Geographical Magazine*, vol. iii, 1892, pp. 53-203.

1892.

Summary of Knowledge of Neocene Geology of Alaska. Dall, W. H., and Harris, G. D. In *Correlation Papers—Neocene: Bulletin U. S. Geological Survey*, No. 84, 1892, pp. 232-268.

Account of an Expedition Through the Yukon District. Hayes, C. W. In *Thirteenth Annual Report U. S. Geological Survey*, pt. 1, 1892, pp. 91-94. A complete report was published in *National Geographical Magazine*, vol. iv, 1892, pp. 117-162.

1893.

Second Expedition to Mount St. Elias in 1891. Russell, I. C. In *Thirteenth Annual Report U. S. Geological Survey*, pt. 2, 1893, pp. 1-91.

1896.

Report on Coal and Lignite of Alaska. Dall, W. H. In *Seventeenth Annual Report U. S. Geological Survey*, pt. 1, 1896, pp. 763-906.

Glacier Bay and Its Glaciers. Reid, H. F. In *Sixteenth Annual Report U. S. Geological Survey*, pt. 1, 1896, pp. 415-461.

Account of an Investigation of the Gold and Coal Deposits of Southern Alaska. Walcott, C. D. In *Seventeenth Annual Report U. S. Geological Survey*, pt. 1, 1896, pp. 56-59.

1897.

Account of a Reconnaissance of the Gold District of the Yukon Region. Walcott, C. D. In *Eighteenth Annual Report U. S. Geological Survey*, pt. 1, 1897, pp. 52-54.

1898.

Reconnaissance of the Gold Fields of Southern Alaska, with Some Notes on General Geology. Becker, G. F. In *Eighteenth Annual Report U. S. Geological Survey* pt. 3, 1898, pp. 1-86.

Geology of the Yukon Gold District, Alaska, by Josiah Edward Spurr; with an Introductory Chapter on the History and Condition of the District to 1897, by Harold Beach Goodrich. In *Eighteenth Annual Report U. S. Geological Survey*, pt. 3, 1898, pp. 87-392.

Account of Operations in Alaska in 1898. Walcott, C. D. In *Nineteenth Annual Report U. S. Geological Survey*, pt. 2, 1898, pp. 20, 53, 116-117.

Map of Alaska, showing known gold-bearing rocks, with descriptive text containing sketches of the geography, geology, and gold deposits and routes to the gold-fields. Prepared in accordance with Public Resolution No. 3, of the Fifty-fifth Congress, second session, approved January 20, 1898. Printed in the engraving and printing division of the United States Geological Survey, Washington, D. C., 1898; 44 pp.; 1 map. A special publication. The data were brought together by S. F. Emmons, aided by W. H. Dall and F. C. Schrader. (Out of stock.)

1899.

Account of Operations in Alaska in 1899. Walcott, C. D. In *Twentieth Annual Report U. S. Geological Survey*, pt. 1, 1899, pp. 12, 52-53, 97, 126-134.

Maps and descriptions of routes of exploration in Alaska in 1898, with general information concerning the Territory. (Ten maps in accompanying envelope.) Prepared in accordance with Public Resolution No. 25 of the Fifty-fifth Congress, third session, approved March 1, 1899. Printed in the engraving and printing division of the United States Geological Survey, Washington, D. C., 1899; 138 pp., 10 maps in accompanying envelope. A special publication. Contributors: G. H. Eldridge, Robert Muldrow, J. E. Spurr, W. S. Post, W. C. Mendenhall, F. C. Schrader, W. J. Peters, A. H. Brooks, and E. C. Barnard. (Out of stock.)

1900.

Alaskan Geographic Names. Baker, Marcus. In *Twenty-First Annual Report U. S. Geological Survey*, pt. 2, 1900, pp. 487-509.

A Reconnaissance from Pyramid Harbor to Eagle City, Alaska, Including a Description of the Copper Deposits of the Upper White and Tanana Rivers. Brooks, A. H. In Twenty-First Annual Report U. S. Geological Survey, pt. 2, 1900, pp. 331-391.

A Reconnaissance in the Tanana and White River basins, Alaska, in 1898. Brooks, A. H. In Twentieth Annual Report U. S. Geological Survey, pt. 7, 1900, pp. 425-494.

A Reconnaissance in the Sushitna Basin and Adjacent Territory, Alaska, in 1898. Eldridge, G. H. In Twentieth Annual Report U. S. Geological Survey, pt. 7, 1900, pp. 1-29.

Altitudes in Alaska. Gannett, Henry. Bulletin U. S. Geological Survey, No. 169, 1900, 13 pp.

A Reconnaissance from Resurrection Bay to the Tanana River, Alaska, in 1898. Mendenhall, W. C. In Twentieth Annual Report U. S. Geological Survey, pt. 7, 1900, pp. 265-340.

A Reconnaissance of the Chitina River and the Skolai Mountains, Alaska. Rohn, Oscar. In Twenty-First Annual Report U. S. Geological Survey, pt. 2, 1900, pp. 393-440.

A Reconnaissance of a Part of Prince William Sound and the Copper River District, Alaska, in 1898. Schrader, F. C. In Twentieth Annual Report U. S. Geological Survey, pt. 7, 1900, pp. 341-423.

Preliminary Report on a Reconnaissance Along the Chandlar and Koyukuk Rivers, Alaska, in 1899. Schrader, F. C. In Twenty-First Annual Report U. S. Geological Survey, pt. 2, 1900, pp. 441-486.

Preliminary Report on the Cape Nome Gold Region, Alaska; with Maps and Illustrations. Schrader, F. C., and Brooks, A. H. Washington, Government Printing Office, 1900. Fifty-six pp., 3 maps and 19 plates. A special publication of the United States Geological Survey.

A Reconnaissance in Southwestern Alaska in 1898. Spurr, J. E. In Twentieth Annual Report U. S. Geological Survey, pt. 7, 1900, pp. 31-264.

Account of Operations in Alaska in 1900. Walcott, C. D. In Twenty-First Annual Report U. S. Geological Survey, pt. 1, 1900, pp. 17-18, 86, 145-149.

1901.

An Occurrence of Stream-Tin in the York Region, Alaska. Brooks, A. H. In *Mineral Resources of the United States* for 1900, U. S. Geological Survey, 1901, pp. 267-271. Published also as a separate, Washington, Government Printing Office, 1901, cover and pp. 1-5.

The Coal Resources of Alaska. Brooks, A. H. In Twenty-Second Annual Report U. S. Geological Survey, pt. 3, 1901, pp. 515-571.

A Reconnaissance of the Cape Nome and Adjacent Gold-Fields of Seward Peninsula, Alaska, in 1900. Brooks, A. H., corrected by Richardson, G. B., and Collier, A. J. In a special publication of the United States Geological Survey entitled *Reconnaissances in the Cape Nome and Norton Bay Regions, Alaska, in 1900*, Washington, Government Printing Office, 1901, pp. 1-180.

A Reconnaissance in the Norton Bay Region, Alaska, in 1900. Mendenhall, W. C. In a special publication of the United States Geological Survey entitled *Reconnaissances in the Cape Nome and Norton Bay Regions, Alaska, in 1900*, Washington, Government Printing Office, 1901, pp. 181-218.

The Geology and Mineral Resources of a Portion of the Copper River District, Alaska. Schrader, F. C., and Spencer, A. C. A special publication of the United States Geological Survey, Washington, Government Printing Office, 1901, pp. 1-94.

Account of Operations in Alaska in 1901. Walcott, C. D. In Twenty-Second Annual Report U. S. Geological Survey, pt. 1, 1901, pp. 35, 95-99, 144, 166-170.

1902.

Preliminary Report on the Ketchikan Mining District, Alaska, with an Introductory Sketch of the Geology of Southeastern Alaska. Brooks, A. H. Professional Paper U. S. Geological Survey, No. 1, 1902, pp. 1-120.

A Reconnaissance of the Northwestern Portion of Seward Peninsula, Alaska. Collier, A. J. Professional Paper U. S. Geological Survey, No. 2, 1902, pp. 1-70.

A Reconnaissance from Fort Hamlin to Kotzebue Sound, Alaska, by Way of Dall, Kanuti, Allen, and Kowak Rivers. Mendenhall, W. C. Professional Paper U. S. Geological Survey, No. 10, 1902, pp. 1-68.

Account of Operations in Alaska in 1902. Walcott, C. D. In Twenty-Third Annual Report U. S. Geological Survey, 1902, pp. 20, 21, 57, 71-82, 161.

1903.

Geographic Dictionary of Alaska. Baker, Marcus. Bulletin U. S. Geological Survey, No. 187, 1902, pp. 1-446.

Placer Gold Mining in Alaska in 1902. Brooks, A. H. In *Contributions to Economic Geology*, 1902: Bulletin U. S. Geological Survey, No. 213, 1903, pp. 41-48.

Stream-Tin in Alaska. Brooks, A. H. In *Contributions to Economic Geology*, 1902: Bulletin U. S. Geological Survey, No. 213, 1903, pp. 92-93.

Coal Resources of the Yukon Basin, Alaska. Collier, A. J. In *Contributions to Economic Geology*, 1902: Bulletin U. S. Geological Survey, No. 213, 1903, pp. 276-283.

The Coal Resources of the Yukon, Alaska. Collier, A. J. Bulletin U. S. Geological Survey, No. 218, 1903, pp. 1-71.

The Glenn Creek Gold-Mining District, Alaska. Collier, A. J. In *Contributions to Economic Geology*, 1902: Bulletin U. S. Geological Survey, No. 213, 1903, pp. 49-56.

The Chistochina Gold-Field, Alaska. Mendenhall, W. C. In *Contributions to Economic Geology*, 1902: Bulletin U. S. Geological Survey, No. 213, 1903, pp. 71-75.

Copper-Deposits of the Mount Wrangell Region, Alaska. Mendenhall, W. C., and Schrader, F. C. In *Contributions to Economic Geology*, 1902: Bulletin U. S. Geological Survey, No. 213, 1903, pp. 141-148.

The Mineral Resources of the Mount Wrangell District, Alaska. Mendenhall, W. C. Professional Paper, U. S. Geological Survey, No. 15, 1903, pp. 1-71.

Account of Operations in Alaska in 1903. Walcott, C. D. In Twenty-fourth Annual Report U. S. Geological Survey, 1903, pp. 78-107, 167, 256.

1904.

Placer Gold-Mining in Alaska, 1903. Brooks, A. H. In *Contributions to Economic Geology*, 1903: Bulletin U. S. Geological Survey, No. 225, 1904, pp. 43-59.

Tin-Ores of the York Region, Alaska. Collier, A. J. In *Contributions to Economic Geology*, 1903: Bulletin U. S. Geological Survey, No. 225, 1904, pp. 154-167.

The Oil-Fields of the Controller Bay and Cook Inlet Regions, Alaska. Martin, G. C. In *Contributions to Economic Geology*, 1903: Bulletin U. S. Geological Survey, No. 225, 1904, pp. 365-382.

The Kotzebue Placer Gold-Field of the Seward Peninsula, Alaska. Moffit, F. H. In *Contributions to Economic Geology*, 1903: Bulletin U. S. Geological Survey, No. 225, 1904, pp. 74-80.

The Fairbanks Gold-Placer District, Alaska. Prindle, L. M. In *Contributions to Economic Geology*, 1903: Bulletin U. S. Geological Survey, No. 225, 1904, pp. 64-73.

A Reconnaissance in Northern Alaska across the Rocky Mountains, along the Koyukuk, John, Anaktuvuk, and Colville Rivers, and the Arctic Coast to Cape Lisburne, in 1901. Schrader, F. C., and Peters, W. J. Professional Paper U. S. Geological Survey, No. 20, 1904, pp. 1-139.

The Gold-Deposits of the Juneau District, Alaska. Spencer, A. C. In *Contributions to Economic Geology*, 1903: Bulletin U. S. Geological Survey, No. 225, 1904, pp. 28-42.

The Porcupine Placer-Mining District, Alaska. Wright, C. W. In *Contributions to Economic Geology*, 1903: Bulletin U. S. Geological Survey, No. 225, 1904, pp. 60-63.

IN PREPARATION.

A Reconnaissance in the Mount McKinley Region, Alaska. Brooks, A. H.

Geography of Alaska. Brooks, A. H.

Placer-Mines of the Nome Region, Alaska. Collier, A. J.

Tin-Ores of the York Region, Alaska. Collier, A. J. Bulletin, No. 229, U. S. Geological Survey.

The Geology of the Yukon. Collier, A. J., and Hollick, C. A.

The Geology of the Central Copper River Basin. Mendenhall, W. C.

A Reconnaissance of the Northwestern Portion of Seward Peninsula. Moffit, F. H.

A Reconnaissance of the Fortymile, Birch Creek, and Fairbanks Gold-Placer Districts, Alaska. Prindle, L. M.

The Geology of the Upper Copper and Tanana Rivers. Schrader, F. C.

The Geology of the Treadwell Mines, Alaska. Spencer, A. C.

The Juneau Gold-Belt, Alaska. Spencer, A. C.

The Oil-Fields of the Controller Bay and Cook Inlet Regions and the Bering Coal-Fields, Alaska. Martin, G. C.

The Porcupine Placer-Mining District, Alaska. Wright, C. W.

TOPOGRAPHIC MAPS OF ALASKA.

- Cape Nome and adjacent gold-fields; scale, 1:250,000. E. C. Barnard.
 Chitina and lower Copper River region; scale, 1:250,000. T. G. Gerdine and D. C. Witherspoon.
 Cook Inlet, head of, to the Tanana via Matanuska and Delta rivers, also part of Kenai Peninsula; scale, 1:625,000. W. C. Mendenhall.
 Cook Inlet, region from head of, to Kuskokwim River and down the Kuskokwim to Bering Sea, Bristol Bay, and a part of Alaska peninsula; scale, 1:625,000. W. S. Post.
 Copper River region; scale, 1:376,000. Lieut. P. G. Lowe, Emil Mahlo, and F. C. Schrader.
 Copper, upper, and Chistochina rivers; scale, 1:250,000. T. G. Gerdine.
 Copper, Nebesna, and Chisana rivers, headwaters of; scale, 1:250,000. D. C. Witherspoon.
 Fort Yukon to Kotzebue Sound, including Dall, Alatna, and Koyuk rivers and Old Man Creek; scale, 1:625,000. D. L. Reaburn.
 Fortymile quadrangle; scale, 1:250,000. E. C. Barnard.
 Koyukuk River to mouth of Colville River, including John River; scale, 1:625,000. W. J. Peters.
 Koyukuk and Chandlar rivers, portions of; scale, 1:625,000. T. G. Gerdine.
 Lynn Canal, routes from, via headwaters of White and Tanana rivers to Eagle City; scale, 1:625,000. W. J. Peters.
 Norton Bay region; scale, 1:625,000. W. J. Peters.
 Prince William Sound, sketch-map of. Emil Mahlo.
 Prince William Sound and vicinity; scale, about 1:376,000. Emil Mahlo.
 Seward Peninsula, northwestern part of; scale, 1:250,000. T. G. Gerdine.
 Sushitna River and adjacent territory; scale, 1:625,000. Robert Muldrow.
 Tanana and White rivers, portions of; scale, 1:625,000. W. J. Peters.
 York and Kugruk regions, sketch-maps of. A. H. Brooks.

TOPOGRAPHIC MAPS OF ALASKA IN PREPARATION.

- General map of Alaska; scale, 1:2,500,000. R. U. Goode.
 Eagle-Goodpaster region, Alaska; scale, 1:250,000. T. G. Gerdine.
 Fairbanks-Birch Creek region, Alaska; scale, 1:250,000. T. G. Gerdine.
 Mount McKinley region; scale, 1:625,000. D. L. Reaburn.
 Juneau special quadrangle; scale, 1:62,500. W. J. Peters.
 Seward Peninsula, northeastern portion of, topographic reconnaissance of; scale, 1:250,000. D. C. Witherspoon.

NOTE BY THE SECRETARY.—Comments or criticisms upon all papers, whether private corrections of typographical or other errors or communications for publication as "Discussions," or independent papers on the same or a related subject, are earnestly invited.

APPENDIX N.

In the United States district court for the district of Alaska, third division.

IN RE NATURALIZATION OF JOHN MINOOK.—OPINION.

John Minook, whose true name is Ivan Paylof, is the son of a Russian trader at St. Michael and an Eskimo mother. Both parents were members of the Russian Church; were married in and according to the rites and observances of the church; and their son, the applicant herein, was born in 1849 at St. Michael in the Russian possessions in North America. Both parents resided in Alaska at the time of the cession to the United States on March 30, 1867, and continued to reside there until their death. The applicant was married subsequent to 1867 to a native woman. They have reared a family of children, whom they have attempted to educate and teach the principles of the Christian religion. The largest mining stream in the Rampart mining district was named Minook Creek in recognition of his worth as a man and a miner. He has adopted the habits of civilized life in dress, manners, and

habitation; has considerable knowledge of and renders obedience to the laws of the United States, and speaks the English language. His witnesses and neighbors testify that he is a fit and proper person to be made an American citizen.

On the 25th day of August, 1900, before the clerk of this court, under the name of Ivan Minook, the applicant declared his intention to become a citizen of the United States, and on the 30th day of July, 1903, he appeared in open court at Rampart, Alaska, with his witnesses, and made proof of the general facts herein stated, as well as other facts required by the naturalization laws, and requested the court to make an order admitting him to citizenship.

Abe Spring, *amicus curiæ*, filed a brief in support of the application.

WICKERSHAM, *District Judge*.

Petitioner seeks naturalization upon the theory that he is now a subject of Russia, but it is suggested on his behalf, also, that he became a citizen of the United States by virtue of the naturalization clause in the third article of the treaty of 1867 between Russia and the United States, by which the former ceded Alaska to the latter. That article is as follows:

"The inhabitants of the ceded territory, according to their choice, reserving their natural allegiance, may return to Russia within three years; but if they should prefer to remain in the ceded territory, they, with the exception of uncivilized native tribes, shall be admitted to the enjoyment of all the rights, advantages, and immunities of citizens of the United States, and shall be maintained and protected in the free enjoyment of their liberty, property, and religion. The uncivilized tribes will be subject to such laws and regulations as the United States may from time to time adopt in regard to aboriginal tribes of that country." (15 Stat. L., 542.)

This treaty stipulation divided the inhabitants of the ceded territory into three classes, each with a different right: First, those Russian subjects who preferred to reserve their natural allegiance might do so and "return to Russia within three years;" second, those Russian subjects who preferred to remain in the ceded territory "shall be admitted to the enjoyment of all the rights, advantages, and immunities of citizens of the United States, and shall be maintained and protected in the free enjoyment of their liberty, property, and religion;" and, third, the uncivilized tribes, who should "be subject to such laws and regulations as the United States may from time to time adopt in regard to aboriginal tribes of that country." Neither the applicant nor either of his parents chose to reserve their natural allegiance and return to Russia within three years, but continued to reside in Alaska without declaring any intention to retain their Russian citizenship. Now, however, the applicant has made a declaration of his intention to become a citizen of the United States, alleging therein that he is yet a Russian subject. He also offers testimony to show that he was not a member of any of the uncivilized tribes in Alaska at the time of the cession or since.

It would be an idle ceremony, and without the jurisdiction of this court, to go through the forms of naturalization with a citizen of the United States, and if the applicant became a citizen by virtue of his acceptance of the naturalization clause of the treaty of cession his petition should now be denied, notwithstanding his assertion that he is a Russian subject. It becomes necessary, then, to determine his status under the third article of the treaty.

The Constitution of the United States provides that "the Congress shall have power * * * to establish a uniform rule of naturalization." (Sec. 8, art. 1.) Naturalization is the act of adopting a foreigner and clothing him with the privileges of a citizen. (*Boyd v. Nebraska*, 143, U. S. 135; 36 L. Ed., 103.) The general rule established by Congress is that provided by statute requiring the applicant to make a sworn declaration of his intention to become a citizen, before a court of record or the clerk thereof, and thereafter to make proof before the court of his residence and qualifications, and to secure the judgment of the court evidencing his strict compliance with the requirements of the naturalization laws. (Secs. 2165-2174, R. S., 1878.)

Congress may admit a single person by a special act (30 Stat. L., 1496), or by statute admit a specified group, class, or tribe upon conditions (24 Stat. L., 388). The power to naturalize is vested exclusively in Congress, which may prescribe the terms on which the United States will adopt an alien people, or may exclude classes or races whose presence would be a menace to the happiness and welfare of her people.

Upon the cession of Louisiana, the Floridas, the Mexican territories, and Alaska, a similar treaty stipulation extended naturalization to their inhabitants. The Constitution of the United States, however, in prescribing the powers of the President, provides that "He shall have power, by and with the advice and consent of the Senate, to make treaties, provided two-thirds of the Senators present concur" (sec.

2, art. 2), but it is not held that the treaty-making body has the power to naturalize by stipulation, nor to incorporate an alien people into the citizenry of the United States without the consent of Congress. In the recent insular cases the Supreme Court of the United States, in the main opinion, say:

"We are also of the opinion that the power to acquire territory by treaty implies not only the power to govern such territory, but to prescribe upon what terms the United States will receive its inhabitants and what their status shall be in what Chief Justice Marshall termed the 'American Empire.' There seems to be no middle ground between this position and the doctrine that if their inhabitants do not become, immediately upon annexation, citizens of the United States, their children thereafter born, whether savage or civilized, are such, and entitled to all the rights, privileges, and immunities of citizens. If such be their status, the consequences will be extremely serious. Indeed, it is doubtful if Congress would ever assent to the annexation of territory upon the condition that its inhabitants, however foreign they may be to our habits, traditions, and modes of life, shall become at once citizens of the United States. In all its treaties hitherto the treaty-making power has made special provision for this subject; in the cases of Louisiana and Florida, by stipulating that 'the inhabitants shall be incorporated into the Union of the United States and admitted as soon as possible * * * to the enjoyment of all the rights, advantages, and immunities of citizens of the United States;' in the case of Mexico, that they should 'be incorporated into the Union, and be admitted at the proper time (to be judged of by the Congress of the United States) to the enjoyment of all the rights of citizens of the United States;' in the case of Alaska, that the inhabitants who remained three years, 'with the exception of uncivilized native tribes, shall be admitted to the enjoyment of all the rights,' etc., and in the case of Porto Rico and the Philippines, 'that the civil rights and political status of the native inhabitants * * * shall be determined by Congress.' In all these cases there is an implied denial of the right of the inhabitants to American citizenship until Congress by further action shall signify its assent thereto." (*Downes v. Bidwell*, 181 U. S., 244; 45 L. Ed., 1088; 21 Sup. Ct. Rep., 770.)

Justices White, Shiras, and McKenna, in their concurring opinion in the case of *Downes v. Bidwell* (182 U. S., 300; 45 L. Ed., 1106; 21 Sup. Ct. Rep., also declare:

"Indeed, in view of the rule of construction which I have just considered—that all powers conferred by the Constitution must be interpreted with reference to the nature of the Government, and be construed in harmony with related provisions of the Constitution—it seems to me impossible to conceive that the treaty-making power by a mere session can incorporate an alien people into the United States without the express or implied approval of Congress. * * *

"Thus, if it be true that the treaty-making power has the authority which is asserted, what becomes of that branch of Congress which is peculiarly the representative of the people of the United States, and what is left of the functions of that body under the Constitution? For, although the House of Representatives might be unwilling to agree to the incorporation of alien races, it would be impotent to prevent its accomplishment, and the express provisions conferring upon Congress the power to regulate commerce, the right to raise revenue—bills for which, by the Constitution, must originate in the House of Representatives—and the authority to prescribe uniform naturalization laws would be in effect set at naught by the treaty-making power. And the consequent result—incorporation—would be beyond all future control or remedy by the American people, since, at once and without hope of redress or power of change, incorporation by the treaty would have been brought about. The inconsistency of the position is at once manifest. * * *

"The theory as to the treaty-making power upon which the argument which has just been commented upon rests, it is now proposed to be shown, is refuted by the history of the Government from the beginning. There has not been a single cession made from the time of the Confederation up to the present day, excluding the recent treaty with Spain, which has not contained stipulations to the effect that the United States through Congress would either not disincorporate or would incorporate the ceded territory with the United States. * * * Such agreements were also expressed in the treaty of 1803, ceding Louisiana (8 Stat. L., 202); that of 1819, ceding the Floridas (8 Stat. L., 252); and that in the treaties of 1848 (9 Stat. L., 922), and 1853 (10 Stat. L., 1031), by which a large extent of territory was ceded to this country, as also in the Alaska treaty of 1867 (15 Stat. L., 539). To adopt the limitations on the treaty-making power now insisted upon would presuppose that every one of these conditions thus sedulously provided for were superfluous, since the guaranties which they afforded would have been obtained, although they were not expressly provided for. When the various treaties by which foreign territory

has been acquired are considered in the light of the circumstances which surround them, it becomes to my mind clearly established that the treaty-making power was always deemed to be devoid of authority to incorporate territory into the United States without the assent, express or implied, of Congress, and that no question to the contrary has ever been even mooted. * * *

"Pausing to analyze the practical construction which resulted from the acquisition of the vast domain covered by the Louisiana purchase, it indubitably results, first, that it was conceded by every shade of opinion that the Government of the United States had the undoubted right to acquire, hold, and govern the territory as a possession, and that incorporation into the United States could under no circumstances arise solely from a treaty of cession, even although it contained provisions for the accomplishment of such result; second, it was strenuously denied by many eminent men that in acquiring territory citizenship could be conferred upon the inhabitants within the acquired territory—in other words, that the territory could be incorporated into the United States without an amendment to the Constitution; and third, that the opinion which prevailed was that although the treaty might stipulate for incorporation and citizenship under the Constitution, such agreements by the treaty-making power were but promises depending for their fulfillment on the future action of Congress. In accordance with this view the territory acquired by the Louisiana purchase was governed as a mere dependency until conformably to the suggestion of Mr. Jefferson it was by the action of Congress incorporated as a Territory into the United States, and the same rights were conferred in the same mode by which other Territories had previously been incorporated—that is, by bestowing the privileges of citizenship and the rights and immunities which pertained to the Northwest Territory. * * *

"It is then, as I think, indubitably settled by the principles of the law of nations, by the nature of the Government created under the Constitution, by the express and implied powers conferred upon the Government by the Constitution, by the mode in which those powers have been executed, and by an unbroken line of decisions of this court, first announced by Marshall and followed and lucidly expounded by Taney, that the treaty-making power can not incorporate territory into the United States without the express or implied assent of Congress, that it may insert in a treaty conditions against immediate incorporation, and that, on the other hand, when it has expressed in the treaty the conditions favorable to incorporation they will, if the treaty be not repudiated by Congress, have the force of the law of the land, and therefore, by the fulfillment of such conditions, cause incorporation to result." (Concurring opinion of Justices White, Shiras, and McKenna in *Downes v. Bidwell*, 182 U. S., 300; 45 L. Ed., 1106; 21 Sup. Ct. Rep., 770.)

The principle involved is analogous to that decided by the Supreme Court of the United States in *Gonzales v. Williams*, where the court said:

"We are not required to discuss the power of Congress in the premises, or the contention of Gonzales's counsel that the cession of Porto Rico accomplished the naturalization of its people, or that of Commissioner Degatan, in his excellent argument as *amicus curiæ*, that a citizen of Porto Rico, under the act of 1900, is necessarily a citizen of the United States. The question is the narrow one whether Gonzales was an alien within the meaning of that term as used in the act of 1891. * * *

"We think it clear that the act relates to foreigners as respects this country, to persons owing allegiance to a foreign government, and citizens or subjects thereof; and that citizens of Porto Rico, whose permanent allegiance is due to the United States, who live in the peace of the dominion of the United States, the organic law of whose domicile was enacted by the United States, and is enforced through officials sworn to support the Constitution of the United States, are not 'aliens,' and upon their arrival by water at the ports of our mainland are not 'alien immigrants' within the intent and meaning of the act of 1891." (*Gonzales v. Williams*, 24 Sup. Ct. Rep., 177.)

By the sixth article of the treaty with Russia the United States agreed, in consideration of the cession of Alaska, to pay that power \$7,200,000. When the bill making the appropriation to pay this sum came before Congress, the constitutional right of the treaty-making power to incorporate arose (1, 2, 3, 4, and 5 Globe, 2d sess., 40th Cong.), and was disposed of by the House of Representatives accepting from a conference committee a preamble reciting that the stipulations of the treaty "that the United States shall accept of such cession * * * can not be carried into full force and effect except by legislation, to which the consent of both Houses of Congress is necessary." (15 Stat. L., 198.) The report embracing this preamble was adopted by the Senate and House of Representatives, and practical effect was thus given to the contention that Alaska could not be incorporated by the treaty-making power without the assent of Congress.

It frequently happens that a treaty stipulates for that which can only be accomplished by Congressional enactment, in which case Congress, i. e., the Senate and House of Representatives, must exercise the powers of legislation in regard thereto before such stipulation is effective. The ratification of a treaty by the Senate creates a contract but does not execute it. When a treaty requires legislative enactments before it can become operative, it will take effect as a national compact on being proclaimed, but it can not become operative as to the particular engagements until the requisite legislation has taken place. (*Foster v. Neilson*, 2 Peters, 253, 314-315; *United States v. Arredondo*, 6 Peters, 691, 734-735.) The treaty with Russia for the cession of Alaska created a contract on the part of the United States to accept the grant, to pay the consideration, and to incorporate the inhabitants thereof, excepting the uncivilized tribes, into the body of the citizens of the United States upon the terms specified, but it was not self-executing and depended for its complete ratification and final execution upon the assent of Congress. The treaty could neither appropriate the money necessary to pay Russia nor naturalize the inhabitants of the ceded territory. Only Congress had that power, and it might refuse to do either or both. Congress did not, however, refuse. The necessary appropriation was made by Congress and the consideration for the transfer paid to Russia.

Congress did not specifically assent to the treaty stipulation promising citizenship to the inhabitants of Alaska. No act of Congress has been called to the attention of the court which expressly approves or assents to the naturalization of those inhabitants of Alaska mentioned in the third article of the treaty. In the case of the Louisiana Territory, the citizenship of the inhabitants mentioned in the treaty was in effect recognized by the ninth section of the act creating the Missouri Territory in 1812, while the fourteenth section contained an elaborate declaration of the rights secured to the people of the Territory. (2 Stat. L., 743, chap. 95.) In 1822 a similar act was passed for Florida. (3 Stat. L., 654, chap. 13.) Both of these Territories were partly organized, however, by the earlier acts providing for temporary governments therein and extending certain laws of the United States to them, and their inhabitants were promptly recognized as citizens by the courts. Not so, however, with the Mexican territories, and particularly California. Benton tells us in his "Thirty Years in the United States Senate," that—

"The treaty of peace with Mexico had been ratified in the session of 1847-48, and all the ceded territory became subject to our Government, and needing the immediate establishment of Territorial governments; but such were the distractions of the slavery question that no such governments could be formed nor any law of the United States extended to these newly acquired and orphan dominions. Congress sat for six months after the treaty had been ratified, making vain efforts to provide government for the new Territories, and adjourning without accomplishing the work."

Before that Congress adjourned, however, it passed an act to establish certain post routes in California (9 Stat. L., 320), and in a civil and diplomatic appropriation bill appropriated money to pay the expenses of marking the boundary between Mexico and the United States (9 Stat. L., 301).

President Polk and his Cabinet took the position that, by such legislation, Congress had, by implication, ratified and approved the provisions of the treaty, which needed the assent of Congress to become operative under the Constitution. Acting upon that assumption, the Secretary of the Treasury issued instructions to enforce there the tariff and navigation laws of the United States, and such action was sustained by the Supreme Court in *Cross v. Harrison*, 16 How., 164. In the concurring opinion of Justices White, Shiras, and McKenna, in speaking of this implied approval of the Mexican treaty by Congress, they say:

"The treaty besides contained a stipulation for rights of citizenship—in other words, a provision equivalent in terms to those used in the previous treaties to which I have referred. The controversy, which was then flagrant on the subject of slavery, prevented the passage of a bill giving California a territorial form of government, and California, after considerable delay, was therefore admitted directly into the Union as a State. After the ratification of the treaty various laws were enacted by Congress which in effect treated the territory as acquired by the United States, and the executive officers of the Government, conceiving that these acts were an implied or express ratification of the provisions of the treaty by Congress, acted upon the assumption that the provisions of the treaty were thus made operative and hence incorporation had thus become efficacious. Ascertaining the general rule from the provisions of this latter treaty and the practical execution which it received, it will be seen that the precedents established in the cases of Louisiana and Florida were departed from to a certain extent—that is, the rule was considered to be that where the treaty in express terms brought the territory within the boundaries of the United States and provided for incorporation, and the treaty was expressly or impliedly recognized by Congress,

the provisions of the treaty ought to be given immediate effect. But this did not conflict with the general principles of the law of nations, which I have at the outset stated, but enforced it, since the action taken assumed not that incorporation was brought about by the treaty-making power wholly without the consent of Congress, but only that, as the treaty provided for incorporation in express terms and Congress had acted without repudiating it, its provisions should be at once enforced.

"Without referring in detail to the acquisition from Russia of Alaska, it suffices to say that that treaty also contained provisions for incorporation, and was acted upon exactly in accord with the practical construction applied in the case of the acquisitions from Mexico, as just stated. However, the treaty ceding Alaska (15 Stat. L., 539) contained an express provision excluding from citizenship the uncivilized native tribes, and it has been nowhere contended that this condition of exclusion was inoperative because of the want of power under the Constitution in the treaty-making authority to so provide, which must be the case if the limitation on the treaty-making power, which is here asserted, be well founded. The treaty concerning Alaska, therefore, adds cogency to the conception established by every act of the Government from the foundation that the condition of a treaty, when expressly or implicitly ratified by Congress, becomes the measure by which the rights arising from the treaty are to be adjusted."

Three years after the ratification of the treaty with Russia, the "inhabitants" who remained in Alaska ceased, in any sense of the word, to be aliens or to owe any allegiance or duty to Russia.

It follows from these authorities that the contract made by the treaty-making power of the United States with Russia, as a part consideration for the cession of Alaska that her civilized inhabitants remaining there after three years might be admitted to full citizenship, could be ratified or executed by the implied action or approval of Congress. Congress did not repudiate the treaty, but, on the contrary, in 1868 extended to Alaska the "laws of the United States relating to customs, commerce, and navigation;" created a collection district therein and established a port of entry at Sitka; gave the United States courts of California, Oregon, and Washington jurisdiction of offenses committed there; provided for protection of the seal fisheries; and otherwise provided for the civil government of the country. (15 Stat. L., 240.) Other acts were passed in aid of those mentioned, and in 1884 "an act providing a civil government" was passed and territorial officers appointed. (23 Stat. L., chap. 53.) The concurring justices in *Downes v. Bidwell* hold that these acts of Congress, establishing civil government in Alaska, are sufficient to constitute an implied approval and ratification of the treaty:

"Without referring in detail to the acquisition from Russia of Alaska, it suffices to say that that treaty also contained provisions for incorporation, *and was acted upon exactly in accord with the practical construction applied in the case of the acquisitions from Mexico, as just stated.*"

The following conclusions seem to contain the substance of the authorities upon the question at issue: (1) The treaty-making power may contract to naturalize the inhabitants of foreign territory ceded to the United States by treaty. (2) It may agree upon terms upon which such alien inhabitants may be adopted into the citizenry of our nation. (3) The treaty-making authority does not possess power to naturalize aliens by treaty stipulation. (4) Congress alone has power to admit aliens to citizenship, and may do so upon such terms as it prescribes. (5) Congress may admit, or refuse to admit, aliens to citizenship upon the terms stipulated in the treaty. (6) The treaty stipulation promising naturalization may be ratified by Congress, and naturalization follow in accordance therewith, either by its express or implied approval, or its failure to repudiate. (7) Congress did impliedly approve the third article of the treaty with Russia for the cession of Alaska, by the passage of the acts of Congress to pay the consideration, to extend the customs, commerce, and navigation laws, and a long line of laws extending civil government and establishing a territorial government therein. (8) Alaska thereby became and is now one of the Territories of the United States. (The *Coquitlam*, 163 U. S., 346; 41 L. Ed., 184; 16 Sup. Ct. Rep., 1117.) (9) Those civilized inhabitants resident in the Russian possessions when ceded to the United States, who did not choose to reserve their natural allegiance and return to Russia within three years after the ratification of the treaty, but who preferred to and did remain in the ceded territory, after three years became thereby, *ipso facto*, "admitted to the enjoyment of all the rights, privileges, and immunities of citizens of the United States."

Was the applicant an "inhabitant" who became a citizen of the United States under the treaty or a member of the excluded "uncivilized native tribes" of Alaska? The United States and Russia are civilized nations, and every person being a citizen of either, although individually lacking in education or other civilized standards, is

a civilized person. We do not recognize a legal difference between members of the same nation based on standards of culture. While one may stand at the bottom and another at the top, if they belong to the same race or nation they are classed together. The rule works both ways. Even if a member of an uncivilized native tribe were to become educated and adopt the habits of civilized life he could not thereby expatriate himself and become a citizen of the nation higher in culture without its consent. (*Elk v. Wilkins*, 112 U. S., 94; 28 L. Ed., 643; 5 Sup. Ct. Rep., 41.) It becomes necessary, then, to determine the status of the applicant as a member of the Russian nation at the time of the cession of Alaska to the United States.

In 1841 the Emperor of Russia granted to the existing Russian-America Company privileges extending over a further period of twenty years, with provision for the establishment of a new charter for the government of the colonies. In October, 1844, an imperial ukase was signed, promulgating this charter, which, among other provisions, fixed and defined the status of the people of Alaska, both Russian and native, in respect to the Russian nation. Chapter VIII deals with the rights of persons living in places reserved for the company, and fixes the status of the inhabitants in great detail. In so far as it is important to explain the status of the colonists it is as follows:

“ARTICLE 2.—*Of colonial civilians.*

“SEC. 227. Russian subjects and persons of free station, having the right to leave America, who have voluntarily settled in that country, shall form a distinct class of society, that of colonial civilians, under the conditions hereinafter provided.

“SEC. 228. Russian commoners and peasants, temporarily resident in the American colonies, voluntarily in the service of the company, married to creole or native American women, and who on account of sickness, old age, or long residence, and by having become acclimatized and accustomed to the mode of life of the country, or who, during long absence from Russia, have lost their near relatives, upon expressing to the company their desire to settle permanently in the country and handing in a written request for permission so to do, shall be assigned to settle on the Kenai shore of America, or in such other localities as the governor may consider most opportune, provided that they be within the Russian possessions; and it shall be the duty of the company to erect for such colonists suitable dwellings; to furnish them with implements necessary for hunting and agriculture, together with domestic animals, cattle, fowls, and grain for sowing; to provide them with food supplies for one year, and to guard against the possibility of their suffering future privations.

“SEC. 229. Such persons shall be excluded from the class to which they belonged in Russia, after the company shall have communicated with the authorities charged with such matters.

“SEC. 230. They shall be permitted to pursue their previous callings, and the said authorities shall demand from the company on their account a poll tax only, waiving all other assessments to which they were previously liable, such poll tax to be levied in accordance with the lists of these persons furnished by the administration of the company.

“SEC. 231. The names of commoners and peasants so assigned to settlements shall be forwarded annually, through the chief administrative office with its other reports to the Minister of Finance.

“SEC. 232. The children of such settlers shall be regarded as creoles, and may enter the company's employ, if they so desire, at the established rates of remuneration.

“SEC. 233. They shall be permitted to dispose of such superfluous commodities as they may accumulate at prices arranged by agreement with the purchaser, except in the case of furs and animal goods, which shall be sold only at the established rates.

“SEC. 234. There shall be no restrictions against the colonial civilians taking service with the company under contract, if the consent of the colonial administration be obtained thereto.

“SEC. 235. In the allotment of ground to colonial civilians, the company shall particularly bear in mind that the natives are not to be embarrassed, and that the colonial civilians are to support themselves by their own labor.

“ARTICLE 3.—*Of the creoles.*

“SEC. 236. Children born of a European or Siberian father and a native American mother, or of a native American father and a European or Siberian mother, shall be regarded as creoles, equally with the children of these latter, of whom a special record is preserved.

“SEC. 237. The creoles are Russian subjects, and, as such, shall have a right to the lawful protection of the Government, equally with all other subjects belonging to

the rank of commoners, even should they not, by merit and for special cause, acquire the rights extended to people belonging to a different station.

"SEC. 238. Pending further legislative action, creoles remaining in the colonies shall not be subject to any governmental tax or dues.

"SEC. 239. The colonial authorities shall exercise special guardianship over the creoles and their property.

"SEC. 240. Creoles who have entered the service of the company and have shown faithfulness and capability in the discharge of their duties, may, in the discretion of the company, be admitted to the enjoyment of the privileges accorded to other Russian subjects who have entered the service from the rank of commoners.

"SEC. 241. Creoles who have been educated in the higher educational institutions in Russia at the company's expense, and who have received degrees as students or doctors of medicine, or military or civil rank, shall not refuse to remain and serve in the colonies, and shall receive from the company an adequate compensation and their subsistence for a period of ten years, after which time they shall have the right to leave the colonies, if they so desire, provided they be not in debt to the company.

"SEC. 242. Those who have learned a trade in Russia at the expense of the company shall serve in the colonies not less than ten years, after which they may, if they desire so to do, leave the colonies and follow their handicrafts in other places.

"SEC. 243. Creoles educated in the colonies at the expense of the company shall remain in the service of the company not less than fifteen years, beginning from the age of seventeen years, at the expiration of which period they may, according to their wishes, pursue other avocations, and shall also have the right to leave the colonies.

"SEC. 244. Having once left the colonies, creoles shall forego the right to demand aid of the company, and while residing in Russia shall be required to gain their livelihood by their own exertions; the company shall be bound only to transport them from the colonies and to assign them traveling expenses, on the same terms as apply to persons leaving the colonial service and who have been employed in similar capacities.

"SEC. 245. Creoles who have elected to follow an independent means of livelihood, and who desire to establish themselves in the colonies, shall be regarded as colonial civilians, with the privileges enumerated in the preceding article.

"SEC. 246. Illegitimate children of creoles shall be provided for and educated at the expense of the company, under the supervision of the colonial government.

"ARTICLE 4.—Of the settled tribes.

"SEC. 247. The settled tribes in the colonies include the inhabitants of the Kuril islands, the Aleutian islands, Kodiak and the adjacent islands, and the Alaska Peninsula; as also the natives living on the shores of America, such as the Kenai natives, the Chugach, etc.

"SEC. 248. The settled tribes professing the Christian belief are not designated by any special name; those professing the native faith shall be styled, for purposes of discrimination, 'settled tribes of other religions.'

"SEC. 249. These people are recognized by the government, equally with all the others, as Russian subjects. So long as they remain in the colonies they shall constitute a distinct rank of people, and shall not be entitled, by meritorious service, or for any other cause, to pass into another condition.

"SEC. 250. As Russian subjects, they shall conform to the common laws of the Government and shall enjoy the protection thereof."

The charter also provided for the elections of chiefs in the settled tribes, and for the settlement of disputes, it being provided that a Russian superintendent and the chief should constitute a tribunal for that purpose. Their villages were to be concentrated that the natives might have the advantages of "ordinary civilized life," the Russian matrimonial state was enforced, and section 262 provided that—

"The superintendents and chiefs will be expected to set a good example in the matter of obeying and carrying into practice the teachings of the church, as well as in upright conduct and commendable industry."

Humane and sensible provisions governed the relations of the settled tribes toward the national church.

"SEC. 271. Natives who do not profess the Christian faith shall be permitted to carry on their devotions according to their own rites.

"SEC. 272. The Russian clergy in making converts among the natives shall use conciliatory and persuasive measures, in no case resorting to coercion.

"SEC. 273. The colonial authorities shall see that the natives are not embarrassed under pretext of conversion to the Christian faith.

"SEC. 274. Natives professing the Christian faith, who, through ignorance, may transgress the ecclesiastical regulations, shall not be subject to fines or punishment; instruction and persuasion are the only proper remedies in such cases.

"SEC. 275. All sales and donations of furs are absolutely prohibited, save in favor of the church and charitable institutions; furs presented to these as an equivalent for cash shall revert to the company, which shall pay the established prices therefor."

Property rights were protected and a mixed tribunal was provided for determining such litigation and appeals allowed as follows:

"SEC. 276. Controversies in regard to property shall be adjusted, in the case of the tribes subject to Russia, by the local chiefs and superintendents.

"SEC. 277. Disputes of Russians and creoles among themselves or with natives, or of these latter with their chiefs, shall be examined into and decided by the officials of the company, superintendents of districts, islands, redoubts, etc. Where one of the disputants is a native, the chief of the village or tribe to which such native belongs, shall, at the request of the local authorities, be present at the investigation and settlement of the controversy.

"SEC. 278. From the decisions of the chiefs and the company's superintendents an appeal lies to the governor of the colony, and shall be presented in person to the governor or his deputy when on their tours of inspection through the colony, or may be handed in through the local office.

"SEC. 279. The governor shall decide all controversies in relation to property in the colonies, under the provisions of section 149; but Russians, creoles, and natives shall have the right of appeal to the supreme senate, after departure from the colony and after six months' time, pursuant to section 13 of this charter. Such six months' term shall not be reckoned from the date of departure from the colonies, but from the time of arrival of the appellants or their attorneys in the Empire, or in such parts thereof as possess regularly organized courts."

The foregoing provisions apply to the settled tribes who lived in permanent villages in fixed habitations and who were, wholly or in greater part, members of the established Russian Church. The Russians recognized a wide difference between these people, with whom they intermarried and lived on terms of intimacy, and the uncivilized native tribes—the pagan tribes. Article 5 deals with "tribes not wholly dependent on the colonial authority, but living in the colonial possessions."

"SEC. 280. The tribes dwelling within the boundaries of the Russian colonies, but not wholly dependent, shall enjoy the protection of the colonial administration only on making request therefor, and when such request is deemed worthy of consideration.

"SEC. 281. The colonial government shall not forcibly extend the possessions of the company in regions inhabited by tribes not dependent on the colonial authority.

"SEC. 283. The company shall be prohibited from demanding from these peoples tribute, taxes, or donations of any kind whatsoever, and, in times of peace, shall not forcibly take any of them away from their own race, save only the hostages given under the usage heretofore existing. The hostages shall be kept in comfort, and the superintendents shall exercise special vigilance that no insult be offered them.

"SEC. 284. In the event of any of these peoples desiring to move into localities occupied by the settled tribes, the colonial administration shall permit such migration if it shall appear that the colonies will not thereby be endangered. Such immigrants shall be received into the number of the settled tribes and shall enjoy the rights and immunities granted to that class of persons.

"SEC. 285. The relations of the colonial administration with the independent tribes shall be limited to the exchange, by mutual consent, of European wares for furs and native products."

It appears, then, that the imperial law recognized the Russian colonists in Alaska, their creole children, and those settled tribes who embraced the Christian faith, as Russian subjects; those tribes not wholly dependent—the independent tribes of pagan faith who acknowledged no restraint from the Russians and practiced their ancient customs—were classed as uncivilized native tribes by the Russian laws. Those laws and these social conditions continued to exist at the date of the treaty of cession in 1867. The settled tribes lived, as they and their descendants do now, at Unalaska, Belkofski, Unga, Kodiak, Kenai, Seldovia, Nuchek, Tatitlek, and other points from the outer Aleutian islands to Yakutat Bay, as also at Fort Alexander at the head of Bristol Bay, at St. Michael on Bering Sea, at the Russian mission, and Nulato on the Yukon River. At these and other colonies or trading posts they gathered in permanent villages. They supported a Russian church, attended and assisted in its service, and practiced the moral precepts taught therein. Their children also attended schools taught by the missionaries, and many of them acquired a liberal education.

A full-blood Aleut was the engraver of the charts in Tebienkof's Atlas of the Russian possessions in America; many of the creoles rose to official rank in the service of the Russian-American company as navigators and traders, and one of them, Etolin, became the governor of the colony. Many clergymen of the established church and officers of the government married creole females. With a strength of character inherited from the paternal stock, a dark though olive skin, an intelligent but languishing eye, a rounded and graceful form, and a mentality above the average, they resembled the creoles of more southern countries, were thought by the Russians to be beautiful, and generally made model wives and mothers. It was these people, Russian colonists, creoles, and settled tribes, members of the established church whom Russia engaged the United States to admit as citizens and to maintain and protect "in the free enjoyment of their liberty, property, and religion."

The question of the social status of these people, from an ethnological point of view, was submitted by me to Prof. W. H. Dall, of the Smithsonian Institution, a long-time resident of Alaska, and one of the recognized authorities upon the ethnology of its people. After carefully reviewing the conditions he concludes as follows:

"To sum up, I should regard as having the civilized status within the meaning of the treaty the Aleuts, the Kodiak, Cook Inlet, Peninsular, and Prince William Sound Eskimo, all of whom are Christians or members of the Greek Christian Church, all of whom were subject to taxation under Russian rule, and were regarded by the Russian law as subjects."

He also includes with these the "mission settlements on the lower Yukon." It is my judgment that the Russian colonists above described, their creole descendants, and the settled tribes, designated in the imperial ukase of 1844, both from an ethnological and a legal standpoint, were civilized people at the date of the treaty of cession to the United States, and upon accepting its provisions became, *ipso facto*, citizens of the United States. And of this stock is the applicant, the creole son of the Russian trader at St. Michael and an Eskimo mother, all of whom were then members of the Greek Church and subjects of Russia at the date of the treaty. The "uncivilized native tribes," excluded from the naturalization benefits of the third article of the treaty, were those independent pagan tribes who acknowledged no allegiance to Russia and lived the wild life of their savage ancestors.

Another phase of the case, however, must be noticed. It may be thought that the status given to these people by the Imperial ukase is not binding upon the United States, and that their rights are to be measured by our laws and not by those of Russia. In *Re Camille* (6 Sawy., 541; 6 Fed., 256) the United States circuit court held that a person of half white and half Indian blood was not a "white person" within the meaning of this phrase as used in the naturalization laws, and was not entitled, as the laws then stood, to be admitted to citizenship in the United States. In section 142 of the Penal Code of Alaska, page 30, Carter's Annotated Codes, in the act making it a crime to sell liquor to Indians, it is enacted:

"That the term 'Indian' in this act shall be so construed as to include the aboriginal races inhabiting Alaska when annexed to the United States, and their descendants of the whole or half blood."

Since the date of the decision in *Re Camille*, however, more liberal laws have been enacted by Congress, having in view the naturalization of Indians who have adopted the habits of civilized life, and if these apply to Alaska they may afford ground for declaring the applicant to be a citizen even though he is a half-breed Indian.

The third article of the treaty expressly excludes from the benefit of the naturalization stipulated therein the "uncivilized native tribes," but the same section contains this concluding sentence:

"The uncivilized tribes will be subject to such laws and regulations as the United States may from time to time adopt in regard to aboriginal tribes of that country."

The meaning of this sentence, in a treaty between Russia and the United States, is clear; it was intended to and does extend all laws and regulations which the United States may, from time to time, adopt in regard to the Indian tribes of the United States to and over the Indian tribes of Alaska. Upon its ratification and its further approval by Congress, this treaty and this clause became the supreme law of the land. It gave the Indian tribes of Alaska the same status before the law as those of the United States, and, unless a different intention appears upon the face of the law, extends all acts of Congress, applicable and of a general nature, relating to the Indians of the United States, to Alaska. It becomes necessary, then, to inquire how far the laws and regulations, from time to time adopted by the United States in regard to its aboriginal tribes, have naturalized members of what were in 1867 the "uncivilized native tribes" of Alaska, and particularly as they relate to this applicant when considered as an Indian half-breed.

In 1887, in line with its previous policy to encourage Indians to settle upon the public domain and lands reserved for their use, to adopt the habits of civilized life and to become self-supporting, Congress passed "An act to provide for the allotment of lands in severalty to Indians on the various reservations, and to extend the protection of the laws of the United States and the Territories over the Indians, and for other purposes." (24 Stat. L., 388.) It is a humane and beneficent law, dictated by the same enlightened and elevating policy which gave freedom to the negro of the United States and the serf of Russia. The act generally provides for the allotment of reservations, but its fourth section provides:

"SEC. 4. That when any Indian not residing upon a reservation, or for whose tribe no reservation has been provided by treaty, act of Congress, or Executive order, shall make settlement upon any surveyed or unsurveyed lands of the United States, not otherwise appropriated, he or she shall be entitled, upon application to the local land office for the district in which the lands are located, to have the same allotted to him or her, and to his or her children, in quantities and manner as provided in this act for Indians residing upon reservations, etc."

Section 6 of this act, however, is the one which extends the benefits of the law and naturalization to the Indian and reads as follows:

"SEC. 6. That upon the completion of said allotments and the patenting of the lands to said allottees, each and every member of the respective bands or tribes of Indians to whom allotments have been made shall have the benefit of and be subject to the laws, both civil and criminal, of the State or Territory in which they may reside; and no Territory shall pass or enforce any law denying any such Indian within its jurisdiction the equal protection of the law.

"And every Indian born within the territorial limits of the United States to whom allotments shall have been made under the provisions of this act or under any law or treaty, and every Indian born within the territorial limits of the United States who has voluntarily taken up, within said limits, his residence separate and apart from any tribe of Indians therein and has adopted the habits of civilized life, is hereby declared to be a citizen of the United States and is entitled to all the rights, privileges, and immunities of such citizens, whether said Indian has been or not, by birth or otherwise, a member of any tribe of Indians within the territorial limits of the United States without in any manner impairing or otherwise affecting the right of any such Indian to tribal or other property."

The applicant in this case was not born within the territorial limits of the United States, but he is, nevertheless, entitled to the benefit of the naturalization clause in this section by virtue of the treaty promise, approved by Congress, that he shall be subject to such laws and regulations as the United States may from time to time adopt in regard to aboriginal tribes of that country. His son, born since 1867, and now 21 years of age, is clearly entitled, as one born within the territorial limits, to the benefits of the act. It follows that the father is entitled to enjoy an equal right with the son, else the treaty provision fails to receive that execution which the honor of our country and its express terms demand. This section declares that he "shall have the benefit of and be subject to the laws, both civil and criminal, of the State or Territory in which they may reside; and no Territory shall pass or enforce any law denying any such Indian within its jurisdiction the equal protection of the law."

Alaska has been one of the Territories of the United States ever since the ratification of the treaty of cession in 1867, and the passage of the act of Congress extending over it the jurisdiction of the United States courts of California, Oregon, and Washington. (15 Stat. L., 241; act July 27, 1868; *In re Coquitlam*, 163 U. S., 346; 41 L. Ed., 184; 16 Sup. Ct. Rep., 1117.) Ever since that date it has been incorporated within the territorial limits of the United States. (*Downes v. Bidwell*, *supra*.) Being entitled by virtue of the treaty to the same benefits as an Indian born within the territorial limits of the United States, the applicant, even if considered to be a half-breed Indian, is a citizen of the United States, for he shows to the satisfaction of the court, by the evidence of his witnesses, that he has "voluntarily taken up, within said limits, his residence separate and apart from any tribe of Indians therein, and has adopted the habits of civilized life."

It also appears in evidence that Minook is married to an Indian woman, and it is interesting, if not necessary, to note that, if he be classed as a white man by virtue of his Russian parentage, then the laws of the United States also declare his wife to be "by such marriage a citizen of the United States, with all the rights, privileges, and immunities of any such citizen, being a married woman." (25 Stat. L., 392, act Aug. 9, 1888.) The same rule which extends benefits to the Indians of Alaska imposes burdens. By the ninth section of the act of Congress of March 3, 1885, it is provided:

"That immediately upon and after the date of the passage of this act, all Indians, committing against the person or property of another Indian or other person any of the following crimes, namely, murder, manslaughter, rape, assault with intent to kill, arson, burglary, and larceny within any Territory of the United States, and either within or without an Indian reservation, shall be subject therefor to the laws of such Territory relating to said crimes, and shall be tried therefor in the same courts and in the same manner and shall be subject to the same penalties as are all other persons charged with the commission of said crimes, respectively; and the said courts are hereby given jurisdiction in all such cases." (23 Stat. L., 356.)

In conclusion, it is my judgment that the applicant is a citizen of the United States by virtue of the third article of the treaty with Russia ceding Alaska to the United States, either as one of those "inhabitants" who accepted the benefits of the proffered naturalization, or as a member of an "uncivilized native tribe" who has since that date voluntarily taken up "his residence, separate and apart from any tribe of Indians therein, and has adopted the habits of civilized life." He was such citizen at the time of making his application to this court, and because the court can not add anything to his status as a citizen his application is denied.

Dated and signed at Fairbanks, Alaska, May 16, 1904.

JAMES WICKERSHAM.
District Judge.

APPENDIX O.

REPORTS FROM VARIOUS SOURCES AS TO POPULATION, SCHOOLS, MARKETS, COST OF LIVING, ETC., AT CERTAIN CITIES, TOWNS, AND VILLAGES IN THE DISTRICT OF ALASKA.

UNITED STATES CUSTOMS SERVICE,
Port of Juneau, Alaska, September 20, 1904.

SIR: Inclosed please find market and wages paid, as per your request. I am inclosing copy of my report of April 10, 1903, to collector of customs. This report may assist you, but would respectfully ask the return of it to the chamber of commerce, as it is the property of said body. Any information possible for me to furnish you from this point will be furnished.

Very respectfully,

JUNEAU, ALASKA, CHAMBER OF COMMERCE,
H. R. SHEPARD, *Secretary.*

HON. JOHN G. BRADY,
Governor of Alaska, Sitka, Alaska.

JUNEAU, ALASKA, *April 10, 1903.*

SIR: Complying with your circular No. 22, of the 3d ultimo, requesting an annual report for year 1902, relative to the business—present and prospective—of this port and vicinity, I beg leave to submit the following:

The port at Juneau is by far the most important port within the district, so far as regards revenue, and embraces all that portion lying between Wrangell Narrows on the south, Berners Bay on the north, extending to Rodman Bay on the west, and covering a vast amount of the "westward." The "westward" boats enter and clear from here, and having touched at places having no customs officer while westward, this port verifies manifest. While covering this territory I have been unable to secure full statistics from the different outlying mining camps and canneries and will confine myself more particularly to Juneau and Douglas Island, 3 miles distant across Castineaux Channel and attached to this port.

JUNEAU.

1. *Municipal government.*—Under the provisions of chapter 21 of the act of Congress approved June 6, 1900, commonly known as the "Carter bill," Juneau has become an incorporated city. The municipal government went into operation on the 1st day of July, 1900. The total area within the city limits of Juneau as incorporated is 231 acres.

The advantages in favor of incorporated towns are self-evident. Without incorporation, all improvements, such as sewerage, street grading, sidewalks, fire department, etc., must depend entirely upon the voluntary contributions of the citizens,

while under municipal government these can be maintained under the auspices of the city council, and all property holders are compelled to contribute their just share toward paying the expense thereof. In addition to this, an incorporated town derives its share of the license tax, such share being one-half of the amount of such levy, which goes to the support and maintenance of the public schools. Juneau has taken advantage of the acts of Congress providing for town-site entries of Government land and thereby acquired fee-simple title to the several lots owned by its citizens.

2. *Banks and mercantile houses.*—There are two banks in Juneau, one national and one private. The national bank is the United States Government depository for southeastern Alaska, and is capitalized at \$50,000.

The first bank in Alaska was started in Juneau, 1895, and is the private bank above referred to, and now has paid-up capital stock of \$100,000; surplus, \$10,000.

The deposits at the two banks are over \$300,000. Nearly every mine and fishery, as well as outlying towns, are doing business with the Juneau banks.

From the very beginning of the history of Juneau the mercantile business has been well represented, and our houses have not only supplied the needs of the surrounding mining camps, but they have been the base of supplies for the whole north. There are six general mercantile stores in Juneau, each carrying a stock of from \$15,000 to \$85,000. There is one exclusive dry goods store, carrying a large stock; two general hardware stores and lumber yards; two butcher shops, owning their own slaughterhouses on the outskirts of the city; three drug stores, two plumbing establishments, two transfer companies, ten grocery and fruit stores, several cigar stores, two milk ranches, besides liquor houses. Juneau has three newspapers, two of which are dailies. A ferry operates between Douglas Island and Juneau.

3. *Mines and mining.*—There are at and in the immediate vicinity of Juneau, outside of Douglas Island, 310 stamps, employing about 500 men. There are 8 large hydraulic mines in operation, employing about 300 men. There are in course of development at least 50 prospective mines, giving employment at present to about 150 men.

During the last year there have been a number of very promising quartz discoveries that in the opinion of eminent mining men will develop into paying mines.

There is one thoroughly equipped sampling and testing mill at Juneau, in connection with an assay office, where all sorts of ore can be tested.

The mining camps located at Windham Bay, Sumdum, Snettisham, Sheep Creek, Salmon, Lemon, McGuinis and Montana creeks, Tee Harbor, Eagle River, Yankee Cove, Seward City, Berners Bay, Funters Bay, and Rodman Bay are tributary to Juneau and make it their base of supplies. Silver Bow Basin, lying immediately back of Juneau, is one vast body of ore, and when the tunnel now started by the Treadwell Company, who own a number of claims, reaches that point, ore sufficient to supply an unlimited number of stamps will be in sight; and the other large companies owning properties in that section will bring their ore to the beach to be milled. Silver Bow Basin within the next six years should give employment to several thousand workmen.

4. *Hotels.*—There are in Juneau 9 hotels and lodging houses, containing 287 rooms, with capacity to accommodate 431 guests. All of these houses are lighted by electricity, and some heated by steam.

5. *Manufactures, etc.*—One boat-building establishment, employing 10 men. A steam laundry, employing 15 men. A saw and planing mill, and shops connected therewith, where nearly all articles of wooden manufacture are made, employing 30 men. Two lumber yards, carrying stocks sufficient to supply local demand for miles around. One brewing establishment, with capacity to manufacture 315 barrels of beer per day, and having an actual output of 400 barrels per month, and employing an aggregate of 6 men. One blacksmith shop. Two additional blacksmith and machinery depots, open to the general public, and equipped for handling the heaviest machinery.

The Juneau electric light plant has two dynamos, one capable of generating light for 2,000 sixteen-candle-power incandescents and the other capable of generating power for 4,000 of the same power lights—total, 6,000 lights—and the company contemplates the following improvements at once: One 500-horsepower engine and one 210-horsepower boiler; these in addition to the two engines aggregating 250 horsepower and one 210-horsepower boiler with which the plant is at present equipped. The plant is valued at \$117,000.

6. *Population.*—The population of Juneau, according to the city election returns for May, 1902, was 2,480, which does not include natives, possibly 250. With the opening up of Silver Bow Basin and other districts, Juneau should have within the next ten years a population of from fifteen to twenty thousand people.

7. *Water supply and fire protection.*—The waterworks system of Juneau draws its supply from two tanks on the crest of a hill or ridge at the rear of the town. These tanks have an elevation of 110 feet above the level of the old court-house site, and both of the water tanks are 190 feet above the main business street of the town, thus affording most excellent hydraulic pressure. The smaller tank, which is for domestic purposes as well as for fire protection, has a capacity of 168,000 gallons. The larger tank is used exclusively for fire protection and has a capacity of 212,072 gallons. The small tank is fed from a spring about three-fourths of a mile away, and the large tank receives the overflow from this spring and also has direct connection with Gold Creek, which furnishes an abundance of water the year round. From these tanks are connected two street mains, 10 inches in diameter, and running the entire length of Franklin street. From these mains are six 6-inch street pipes, running the entire length of First, Second, Third, Fourth, Fifth, Sixth, and Seventh streets. On all corners of the town where buildings are adjacent there are good, modern, nonfreezing hydrants, with two tops on each. New steel pipes and additional hydrants are now being put in.

The fire department of the city is well organized, and consists of three hose companies and a boys' auxiliary, which are equipped with plenty of hose, hose carts, with good quarters for the same, bell towers, and electric fire alarms. There is also a hook and ladder company, with truck and all necessary equipment. A fire engine is constantly located on the highest elevation.

8. *Postal statistics.*—Juneau is the largest distributing post-office in Alaska, and the postal center for the following routes: Juneau to Unalaska, monthly, 2,200 miles, 13 offices; Juneau to Skagway, twice weekly, 110 miles, 4 offices; Juneau to Sumdum, once weekly, 60 miles, 3 offices; Seattle to Skagway, four days, 1,100 miles, 7 offices; Juneau to Sitka, four days, 160 miles, 7 offices; Juneau to Kodiak, monthly, 1,000 miles, 9 offices; Seattle to Skagway, five days, 1,100 miles, 7 offices; Juneau to Treadwell, daily, $3\frac{1}{2}$ miles, 3 offices; Juneau to Douglas, daily.

Juneau is a third-class office. Postmaster's salary \$1,800 per year, and a force of 3 men in the office. Contracts from Seattle and Juneau to Skagway connect with daily service to Dawson and Yukon River points in the summer, and semiweekly in winter.

9. *Religious, benevolent, educational, and professional statistics.*—There are five church organizations in Juneau, representing the Catholic, Presbyterian, Methodist, Episcopalian, and Greek Orthodox demoninations, with five places of worship. The total number of families connected with these organizations is 192, and the total membership is 577. The total enrollment of children in the Sabbath schools is 206.

Juneau has four orders principally devoted to charity and benevolence—the Elks, the Odd Fellows, the Red Men, and the Knights of Pythias. These several lodges have a total membership of 450. In connection with the benevolent and charitable institutions, the hospital, carried on under the auspices of the Sisters of Charity, might be properly mentioned as indicative of the growth and progress of Juneau. This institution was founded in 1885, and at that time consisted of a small building capable of accommodating 6 patients. To-day the same has facilities for taking care of 50 patients at one time.

According to the enumeration taken during the last school year by the city school board, the number of children of school age in the city limits is 212. The enrollment in the public schools for the present year is 186, and that of the private-school children is 46, making a total enrollment of the school children in the city of 232. This is an increase over last year of 24 children.

In addition the school board conducted a separate school for the natives, in which were enrolled 35 children.

Juneau has a graded school, 6 teachers teaching 12 grades. The public-school building is a beautiful structure lighted by electricity, steam heated, and with a well-supplied library. The amount invested in this building, furniture, fixtures, etc., is over \$10,000. There is no debt against the above. The amount spent for educational purposes last year was \$8,000.

There was collected last year, general license money, \$23,976.95, of which \$18,000 was from saloons. One-half of this amount was applied to the public schools.

In the learned professions Juneau has four physicians and surgeons engaged in active practice, who are equipped with the latest and best medical works, and the most improved instruments of modern surgery. They are all graduates of some well-recognized college of the profession in the United States.

In the legal profession Juneau has thirteen resident lawyers, all of whom are engaged in active practice. Of this number 12 have families residing in Juneau and 5 own their own homes.

Belonging to the profession there are eight law libraries, having law books numbering from 200 to 1,065 each. The law books in Juneau aggregate over 5,000 volumes.

Juneau is the seat of the judiciary for the first division of the district of Alaska. An appropriation of \$60,000 has been secured from Congress for the construction of a new court-house and jail, and same is now under construction and will be completed during the year 1903. The permanent location of the court here is an important fact in any consideration of the town and its resources.

10. *Assessed valuation and tax levy.*—Total assessed valuation of Juneau is \$1,065,020. Tax levy, 8 mills. Amount of tax levied, \$8,520.16.

11. *Freight tonnage.*—Total number of tons received at Juneau, 5,607; total number of tons forwarded, 1,381.

12. *Rates, passenger and freight.*—Passenger rates to or from sound ports, first class, \$25; second class, \$16. To or from San Francisco, first class, \$37; second class, \$22.

Freight rates per ton from Puget Sound ports are as follows:

General merchandise (including groceries, dry goods, hardware, etc.)	\$9.00
Vegetables, average rate	11.00
Butter	14.00
Hay and feed	20.00
Meat	27.00

On freight, those having contracts with the different companies receive a rebate of 20 per cent from the above rates.

13. *Fishing.*—There are several canneries and salting houses in the vicinity of Juneau, all doing a large business. The business of shipping fresh fish was not attempted until the last half of this year, and during that time there were shipped from Juneau alone 750 tons of fresh halibut and 51 tons of salted fish. Next year will see a much larger catch.

While the waters of Lynn Canal abound with shrimp of a large size and an excellent quality, no effort has yet been made to utilize them.

DOUGLAS CITY.

Douglas City is a substantial town of 1,200 inhabitants, about 2½ miles from Juneau, on Douglas Island, and was incorporated March 28, 1902. The city limits extend to the boundaries of the city of Treadwell.

Douglas City has the usual number of business houses, several of which carry stocks to the value of \$20,000, and, outside of supplying outlying camps, has the large pay roll of the Treadwell Company to depend upon, and will always be a good, substantial town, backed up by enterprising and conservative business men.

Douglas City is electrically lighted, has a substantial wharf at which all steamers land, north and south bound, and a ferry service which connects it with the town of Juneau. The ferry makes nine trips each day. The streets are wide and well taken care of. The buildings are of a substantial nature. Douglas City has three volunteer fire companies, with paraphernalia valued at \$2,010, and the total loss by fire last year was \$6. Douglas City is constantly improving, and each year adds to its importance.

Schools.—A new school building was erected during the year. The amount invested in school property is \$10,764. The school employs three teachers, who attend to the three departments—primary, intermediate, and grammar. The school term is nine months.

For the year 1902 there were 127 scholars enrolled, of which a percentage are of foreign parentage; \$375 is spent each month for educational purposes and all books are furnished by the district.

Statistical information.—The assessed valuation of Douglas City is \$500,000. The municipal expenses for the year were \$1,020, besides which \$1,300 was spent on the improvement of the streets, which was collected by private subscriptions.

The total receipts from saloon licenses and tax levy was \$15,532.96, of which one-half went for school purposes.

The freight received on the Douglas City dock amounted to 1,927 tons.

There are no idle men about Douglas City, the labor supply and demand being about equal.

The average rate of wage is \$3.50 per day. Cost of living, single persons, \$30 per month; family of five, \$60. Population is mostly engaged in mining, lumbering, and fishing.

Douglas City has two sawmills with a cutting capacity of 29,000 feet per day, and employing 20 men, at an average wage of \$3.50 per day. Extensive improvements are contemplated in both these mills.

TREADWELL.

Treadwell, incorporated March 16, 1901, is separate and apart from Douglas City, though the latter adjoins it.

Treadwell store is the only business house in Alaska paying the maximum license of \$500 per year, which allows them to do an unlimited business. This store carries the largest stock of merchandise in Alaska, the prices being less than on Puget Sound. Their business for 1902 amounted to over \$1,000,000.

Treadwell has no churches or saloons and no assessments made or taxes collected, the company making and maintaining all public improvements and paying all municipal expenses.

But few of the married employees of the company live at Treadwell, owing to the scarcity of cottages, residing mostly at Douglas City. Treadwell, however, has a graded school which runs nine months of the year and at which 25 scholars are enrolled. The estimated cost of living per family of five persons is \$50 per month; for a single person, \$25 per month.

A post-office is established in the general store, where all employees may receive their mail. There is a general upward tendency in local affairs.

Labor supply and demand.—Local conditions are good. The Treadwell Company has never had any strikes or labor troubles. The number of employees will average about 1,100, at an average wage of \$3.25 per day. Improvements are contemplated the coming year that will greatly increase the number of employees.

Statistical information.—Treadwell received over its wharf for its own use 5,705 tons of freight during the year 1902. Number of tons of ore crushed in 1902, 1,116,870; average value of ore, \$2.33 per ton.

Treadwell shipped during the year 1902, 27,072.45 tons of concentrates, valued at \$1,315,756.26, and bullion valued at \$1,219,480; total production, \$2,535,236.26.

Eight hundred and eighty stamps are dropping day and night every day in the year. The only exceptions are on the Fourth of July and Christmas Day.

Within the past year a Y. M. C. A. has been organized and \$10,000 have been invested in a building, billiard and pool tables, bowling alley, gymnasium, library and reading room, barber shop, baths, etc. The building includes an auditorium, which will accommodate 800 persons. It is the largest industrial association in the Northwest and entertains about 10,000 visitors each month. The institution is supported by a payment of \$1 per month on the part of each of the employees. This entitles them to all privileges, such as lectures, etc. The families of members are admitted to all privileges every Friday.

The association owns the building and ground, and the electric light, heat, and water are all furnished by the Treadwell Company. A night school will be organized in the near future.

Nationalities represented at the Y. M. C. A. are Norwegian, Swedish, Slavonian, Italian, German, Finn, native Indian, and American. Literature is provided in the language of the different nationalities represented. Probably 20 per cent of the membership is illiterate.

CONCLUSION.

The local conditions surrounding Juneau affect Douglas city and Treadwell.

During the year 1902 goods paying duty, valued at \$135,810, were entered at the port of Juneau. The amount of duty collected thereon was \$26,238.53; fees, \$763.26; total collections year 1902, \$27,001.79. The expenses at this port for the year were about \$3,506.

The greater portion of revenue at this port is received from the duty on foreign coal—67 cents per ton—the Treadwell Company alone using not less than 25,000 tons per year. This amount will increase as improvements continue.

The business of this section for the year 1902 was about 20 per cent better than for the year 1901, and the outlook was never brighter.

Respectfully,

H. R. SHEPARD.

COLLECTOR OF CUSTOMS,
Sitka, Alaska.

KETCHIKAN.

Ketchikan was incorporated August 8th, 1900. Population, 1,100. Vote cast at last election, 207. Number of children in public school, white, 67; native, 46. Number of teachers, 3. Months of school, 9. Average salary, \$85 per month. Number of churches, 3.

Ketchikan has 2 hospitals, is a port of entry, and also quarantine station. Value of school property, \$8,000. Value of church property, \$7,000. Secret societies: Red Men, membership, 198; F. O. E., 102; Daughters of Pocahontas, 80; Masonic association, 24; I. O. O. F., 23. Assessed valuation of property, \$365,000. Freight, tons over wharf, one year, 5,394. Receipt for wharfage freight, \$51,901. General merchandise sold, \$325,000. Butcher shops, business of, \$35,000. Drug stores, \$10,000. Sawmill, 7 months, \$35,000. Saloon, \$90,000. Miscellaneous, \$26,000. Coal sold, tons, 1,166. Instruments filed for record at recorder's office, 1,100. Wages, average pay for common labor, \$4 per day. Wages, average pay for skilled, \$5 per day. Rate of taxation, 5 mills, reduction of $2\frac{1}{2}$ mills over 1903. Number of physicians, 3. Attorneys, 5.

Ketchikan has a thoroughly organized fire department, including an up-to-date chemical engine. Lodge of Red Men has a hall 44 by 100 feet; estimated cost, finished, \$10,000.

Ketchikan has a new city hall; also electric light and water system valued at \$35,000, affording abundant supply and pressure for fire protection. Cost of living, furnished rooms from \$10 to \$15 per month. Meals at restaurant, per week, \$7. Supply of labor during last four years has never equaled demand.

M. E. MARTIN, *Mayor*,
G. E. RODMAN, *Town Clerk*.

POPULATION AND SCHOOLS.

NOME, August 25, 1904.

SIR: In compliance with your request regarding the population of this city, the amount of taxable property, etc., I beg to submit the following statement:

Population at present, about 5,000. Population last April, before opening of navigation, 3,200.

Nome was incorporated month of April, 1901.

Labor supply unlimited. Average wages, \$5 per day, and found. Cost of living, about \$2 per day.

The population is comprised about as follows: One-half native-born Americans, the other half comprise mostly Irish, Scandinavian, Canadian, German, English, Scotch, and French.

Taxable property, \$1,500,000.

Respectfully, yours,

ANTHONY MCGOTHQUIN.

JOHN G. BRADY, *Governor of Alaska*.

VALDEZ, September 19, 1904.

DEAR SIR: In accordance with your request of August 30, the following report is respectfully submitted:

Number of teachers employed, 3. Salaries per month: Principal, \$125; assistants, each, \$100. Cost of building, \$2,500. Number of pupils enrolled, 6 to 14 years, 47; number of pupils enrolled, 14 to 21 years, 15.

From August 11, 1903, to June 14, 1904, \$3,698.50 was turned over to the school fund by the clerk of the court. But very little, if any, money was turned over from June 1, 1903, to August 11, 1903. June 14, 1904, \$333.50 was paid to the town treasurer by the clerk of the court for school purposes. I am not able to give you the exact amount from June 1, 1903, to June 1, 1904.

Very respectfully,

CHARLES E. BURNELL.

HON. JOHN G. BRADY, *Governor of Alaska, Sitka, Alaska*.

SKAGWAY.

White school.—Number teachers employed: Principal and 4 teachers. Salaries per month: Principal, \$150; teachers, \$100. Cost of building, \$9,000. Number of pupils enrolled, 6 to 14 years, 230; number of pupils enrolled, 14 to 21 years, 12.

The school has a regular course of study consisting of eight grades and four years of high school. It is well supplied with apparatus, such as maps, charts, mathematical blocks, etc., and has a small library of about 350 books.

There are pupils in all the grades, and in the first year of high school.

J. T. LEE, *Principal*.

JACKSON.

Population (estimated).—1900: Natives, 250. January, 1903: White, 11; natives, 280. June, 1903: White, 2; natives, 30. January, 1904: White, 9; natives, 310. June, 1904: White, 3; natives, 20.

School population.—Six to 14 years, 19; 14 to 21 years, 29.

KILLISNOO.

Population (estimated).—White: Varies from about 90 during the fishing season to about 20 during winter. Natives: See last census.

School population.—Six to 14 years, natives, 58; 14 to 21 years, natives, 18.

SEALEVEL.

Population (estimated).—January, 1903: White, 72; native, 8. June, 1903: White, 80; native, 8. January, 1904: White, 5; native, 9; June, 1904: White, 3; native, 7.

GUNDER NYGARD, *Assistant Postmaster.*

SHAKAN.

Population (estimated).—January, 1903: White, 12; native, 250. June, 1903: White, 20; native, 300. January, 1904: White, 6; native, 150. June, 1904: White, 15; native, 15.

School population.—None at present. All fishing at Klawack. Are expected back the last of this month.

HAINES.

Population (estimated).—1900: White, 50; native, about 400. January, 1903: White, 100; native, about 400. June, 1903: White, 100; native, about 400. January, 1904: White, 150; native, about 350. June, 1904: White, 175; native, about 350.

School population.—Six to 14 years: White, 10; native, 75. Fourteen to 21 years: White, 3; native, 25.

Respectfully submitted.

W. B. STOUT, *Postmaster.*

ALASKAN MARKETS.

HOPE.

Population (estimated).—January, 1903: White, 70; native, 15. June, 1903: White, 130; native, 16; Creole, 6. January, 1904: White, 72; native, 20; Creole, 14. June, 1904: White, 85; native, 36; Creole, 32.

School population.—June, 1904: Six to 14 years, 13, all classes; 14 to 21 years, 12, all classes.

SKAGWAY.

Flour, per hundredweight	\$2. 90
Sugar, per pound .....	.06 $\frac{3}{4}$
Coffee, per pound	0. 15 to 0. 50
Beans, per pound .....	.06
Bacon, per pound .....	.18
Dried fruits, per pound .....	.12 $\frac{1}{2}$
Butter, per pound .....	.35
Potatoes, per pound .....	.02 $\frac{1}{2}$
Onions, per pound .....	.02 $\frac{1}{2}$
Baking powder, per pound	0. 15 to 0. 50
Condensed milk, per case	4. 50

Candles, per pound.....	\$0.15
Tea, per pound.....	0.20 to 0.90
Cheese, per pound.....	.16
Vegetables:	
In cans.....	0.10 to 0.40
Tomatoes, per case.....	2.75
Corn, per case.....	3.25
Beans, per case.....	2.50
Pease, per case.....	2.50
Fruits in cans.....	0.15 to 0.40
Oranges, per dozen.....	0.15 to 0.75
Lemons, per dozen.....	.35
Eggs, per dozen.....	.40
Wood, per cord.....	5.00
Coal, per ton.....	8.00 to 13.50
Kerosene, per case.....	2.90
Wages:	
Common labor, per day.....	3.50 to 4.00
Miners, per day.....	4.00 to 5.00
Mechanics, average per day.....	5.50 to 7.50
City water, rent per month, per hydrant.....	2.00
Electric light, per month, per 16 candle.....	1.25

H. B. LaFEVRE,
Secretary Chamber of Commerce.

JUNEAU.

Flour, per hundredweight.....	\$2.90
Sugar, per pound.....	.07 $\frac{3}{4}$
Coffee, per pound.....	.40
Beans, per pound.....	.05
Bacon, per pound.....	.18
Dried fruits, per pound.....	.10
Butter, per pound.....	.30
Potatoes, per pound.....	.02 $\frac{1}{4}$
Onions, per pound.....	.03
Baking powder, per pound.....	.50
Condensed cream, per case, 10 ounces.....	2.00
Condensed milk, per case, 10 ounces.....	1.40
Candles, per pound.....	.15
Tea, per pound.....	.50
Cheese, per pound.....	.20
Vegetables in cases:	
Tomatoes, per case.....	2.50
Corn, per case.....	3.00
Beans, per case.....	2.25
Pease, per case.....	2.50
Fruits in cans, per dozen.....	2.00
Oranges, per dozen.....	.40
Lemons, per dozen.....	.25
Eggs, per dozen.....	.35
Wood, per cord.....	5.00
Coal, per ton.....	12.50
Kerosene, per case.....	3.00

SITKA.

Flour, per hundredweight.....	\$2.90 to 3.50
Sugar, per pound.....	0.06 $\frac{1}{2}$ to 0.07
Coffee, per pound.....	0.15 to 0.50
Beans, per pound.....	.06
Bacon, per pound.....	.18
Dried fruits, per pound.....	.12 $\frac{1}{2}$
Butter, per pound.....	.35
Potatoes, per pound.....	0.02 $\frac{1}{4}$
Onions, per pound.....	0.03 to 0.05

Baking powder, per pound.....	\$0. 15 to 0. 50
Condensed milk, per case.....	4. 50 to 4. 80
Candles, per pound.....	0. 15
Tea, per pound.....	0. 25 to 1. 00
Cheese, per pound.....	0. 16 to 0. 20
Vegetables:	
In cans.....	0. 10 to 0. 35
Tomatoes, per case.....	2. 40 to 4. 00
Corn, per case.....	2. 50 to 4. 00
Beans, per case.....	2. 40 to 2. 75
Peas, per case.....	2. 40 to 4. 50
Fruits, in cans.....	0. 15 to 0. 40
Oranges, per dozen.....	0. 20 to 1. 00
Lemons, per dozen.....	0. 30
Eggs, per dozen.....	0. 35 to 0. 50
Ice, per ton.....	6. 00
Wood, per cord.....	4. 50
Wood, sawed, per cord.....	6. 50
Coal, per ton.....	15. 00
Kerosene, per case.....	2. 85
Wages:	
Common labor, per day.....	3. 00
Miners, per day.....	4. 00
Mechanics, average per day.....	4. 50
City water, rent per month.....	2. 00

NOME.

[From the Nome Gold Digger, July 27, 1904.]

Van Camp's pork and beans, 3-pound tins, each.....	\$0. 15
French mustard.....	.05
Vitos, a breakfast gem, per package.....	.15
McLarren's Imperial cheese, 1 pound, 20 cents; 3 pounds for 50 cents.	
Burnett's vanilla extract, one-half pint.....	.50
Columbia catsup, quart.....	.25
Blackberries, Victoria brand, two cans.....	.25
Agen's pickled butter.....	.40

[From the Nome Semi-Weekly News, August 9, 1904.]

St. Charles and Peerless cream, three for.....	.25
Mexican hot.....	.10
Major Grey's chutney.....	.45
Brown bread, 5 pound tins, three for.....	.50
Van Camp's macaroni and cheese, large cans.....	.15
Broiled mackerel, tomato sauce.....	.20
Beets, small red, two tins.....	.25

[From the Nome Semi-Weekly Nugget, August 17, 1904.]

White Squadron coffee, 1-pound tins.....	.35
Jellied roast fowl.....	.25
Imported kippered herring, Marshall's.....	.20
Codfish, 2-pound bricks.....	.15
Lea & Perrin's Worcestershire sauce, large size.....	.75
Log Cabin syrup, one-half gallon tins.....	.65
Cocconut, 8 ounces, 2 packages.....	.25
T. & B. Myrtle cut plug, 8-ounce tins.....	.35

ELLAMAR.

Flour, per hundredweight.....	\$3. 20
Sugar, per pound.....	.08½
Coffee, per pound.....	.25
Beans, per pound.....	.05

Bacon, per pound	\$0. 18
Dried fruits, per pound .....	.08.
Butter, per pound .....	.30
Potatoes, per pound .....	.03
Onions, per pound .....	.04
Baking powder, per pound .....	.50
Condensed milk, per case	7. 50
Candles, per pound .....	.15
Tea, per pound .....	.40
Cheese, per pound .....	.20
Vegetables, in cans:	
Tomatoes, per case	3. 00
Corn, per case	3. 50
Beans, per case	3. 00
Peas, per case	3. 00
Fruits, in cans	4. 75
Oranges, per dozen .....	.50
Lemons, per dozen .....	.40
Eggs, per dozen .....	.30
Wood, per cord	4. 00
Coal, per ton	12. 00
Kerosene, per case	3. 50

HAINES.

Flour, per hundredweight	\$3. 00
Butter, per pound .....	.30
Sugar, per pound .....	.07
Coffee, per pound	0. 20 to 0. 50
Beans, per pound .....	.05
Bacon, per pound .....	.16
Dried fruits, per pound .....	.10
Cheese, per pound	0. 20 to 0. 25
Tea, per pound	0. 50 to 1. 00
Potatoes, per pound .....	.03
Onions, per pound .....	.05
Baking powder, per pound	0. 25 to 0. 50
Candles, per pound .....	.15
Condensed milk, per case	4. 75 to 7. 00
Tomatoes, per case	3. 00
Coal oil, per case	3. 00 to 3. 50
Wood, per cord	3. 50
Coal, per ton	12. 00 to 14. 00

Freight from Haines to Porcupine, 40 miles.—By boat, 3 cents per pound; by dog team, 3 cents per pound; by pack animals, 3 cents per pound.

Respectfully submitted.

W. B. STOUT, *Postmaster.*

YAKUTAT.

Flour, per hundredweight	\$3. 00 to 3. 50
Butter, per pound (2 pounds, 75 cents) .....	.40
Sugar, per pound .....	.10
Coffee, per pound	0. 25 to 0. 50
Beans, per pound .....	.06
Bacon, per pound .....	.20
Dried fruits, per pound	0. 10 to 0. 15
Cheese, per pound .....	.25
Tea, per pound .....	.60
Potatoes, per pound .....	.03
Onions, per pound .....	.05
Baking powder, per pound	0. 15 to 0. 60
Candles, per pound .....	.15
Eggs, per dozen .....	.40

Condensed milk, per case (cream, \$5.75)	\$10.00
Tomatoes, per case	3.00
Coal oil, per case	3.50
Wood, per cord	4.00

Freight from Seattle to Yakutat, \$12 per ton.

COPPER CENTER.

Flour, per hundredweight	\$25.00
Sugar, per pound .....	.35
Coffee, per pound .....	.75
Beans, per pound .....	.35
Bacon, per pound .....	.40
Dried fruits, per pound .....	.35
Butter, per pound .....	.75
Baking powder, per pound	1.00
Condensed milk, per can .....	.50
Candles, per box	8.00
Tea, per pound	1.00
Vegetables in cans:	
Tomatoes, per can	1.00
Corn, per can	1.00
Beans, per can	1.00
Fruits, in cans	1.00
Freighting from Valdez to Copper Center, 103 miles:	
By packers, per hundredweight	35.00
By dog team, per hundredweight	12.50

JACKSON.

Flour, per hundredweight	\$3.00
Butter, per pound .....	.35
Sugar, per pound .....	.07
Coffee, per pound	0.27 to 0.50
Beans, per pound .....	.03
Bacon, per pound .....	.18
Dried fruits, per pound	0.13 to 0.16
Cheese, per pound .....	.19
Tea, per pound	0.20 to 0.70
Potatoes, per pound .....	.03
Onions, per pound .....	.04
Baking powder, per pound .....	.15
Candles, per pound .....	.20
Condensed milk, per case	5.00 to 7.00
Tomatoes, per case	3.00
Coal oil, per case	2.50
Wood, per cord	3.00
Coal, per ton	12.00

KILLISNOO.

Flour, per hundredweight	\$2.50 to 3.00
Butter, per pound .....	.37½
Sugar, per pound .....	.08½
Coffee, per pound	0.20 to 0.50
Beans, per pound	0.06 to 0.08
Bacon, per pound .....	.20
Dried fruits, per pound	0.10 to 0.20
Cheese, per pound .....	.25
Tea, per pound	0.50 to 0.80

Potatoes, per pound	\$0.02 to 0.03 $\frac{1}{2}$
Onions, per pound	0.03 to 0.10
Baking powder, per pound	0.25 to 0.50
Eggs, per dozen	0.25 to 0.40
Condensed milk, per case	5.00 to 5.75
Tomatoes, per case	3.00
Coal oil, per case	3.00
Wood, per cord	4.00
Coal, per ton	9.50 to 12.50

SHAKAN.

Flour, per hundredweight	\$3.00
Butter, per pound .....	.37 $\frac{1}{2}$
Sugar, per pound .....	.08
Coffee, per pound	0.20 to 0.25
Beans, per pound .....	.06
Bacon, per pound .....	.20
Dried fruits, per pound .....	.12 $\frac{1}{2}$
Cheese, per pound .....	.20
Tea, per pound .....	.60
Potatoes, per pound .....	.04
Onions, per pound .....	.04
Baking powder, per pound	0.25 to 0.50
Candles, per pound .....	.10
Eggs, per dozen .....	.35
Condensed milk, per case	4.50
Tomatoes, per case	3.00
Coal oil, per case	2.50
Wood, per cord	4.00
Coal, per ton	8.00
Freight, from Wrangell to Jackson, 201 miles, by boat, per hundredweight.	.20

METLAKATLA.

Flour, per hundredweight	\$3.10
Butter, per pound .....	.32 $\frac{1}{2}$
Sugar, per pound .....	.08 $\frac{1}{3}$
Coffee, per pound .....	.25
Beans, per pound .....	.06 $\frac{1}{4}$
Bacon, per pound .....	.20
Dried fruits, per pound	0.10 to 0.15
Cheese, per pound .....	.20
Tea, per pound	0.40 to 0.50
Potatoes, per pound .....	.02 $\frac{1}{2}$
Onions, per pound .....	.04
Baking powder, per pound .....	.30
Candles, per dozen .....	.25
Eggs, per dozen .....	.30
Condensed milk, per case	9.60
Tomatoes, per case	7.20
Coal oil, per case	3.20
Wood, per cord	3.00
Coal, per ton	11.00
Freight from Seattle to Metlakatla, 650 miles, per ton	6.00

FAIRBANKS.

Flour, per sack	\$6.00
Beef, per pound .....	.50
Chicken and turkey, per pound	1.00
Steak, per pound .....	.70
Pork, per pound .....	.80
Beans, per pound .....	.15

Butter, per roll (2 pounds)	\$1.50
Hay, per pound .....	.07
Wages:	
Carpenters, per hour	1.50
Miners, per day and found	5.00

COUNCIL CITY.

[Council City News, August 6, 1904.]

Eight cans cream	\$1.00
Rex hams and bacon, per pound .....	.20
Westover (3 plugs)	1.25
T & B, per plug .....	.25
Star (2 pounds)	1.25
Agens butter (2-pound can) .....	.75
Eggs (2 dozen) .....	.75
Gold Seal boots	8.50

HOPE.

Flour (good), per cwt.	\$3.50 to \$4.00
Coffee, per pound .....	.22 to .45
Sugar, per pound .....	.08 to .12 $\frac{1}{2}$
Beans, per pound .....	.06 $\frac{1}{2}$ to .08 $\frac{1}{3}$
Bacon, per pound .....	.22
Dried fruits, per pound .....	.12 $\frac{1}{2}$ to .15 and .17 $\frac{1}{2}$
Cheese, per pound .....	.20 to .25
Tea, per pound .....	.50 to .75
Potatoes, per pound .....	.03 to .04
Onions, per pound .....	.05
Baking powder, per pound .....	.50 to .65
Condensed milk, per case	9.00 to 11.00
Tomatoes, per case	3.00 to 3.50
Coal oil, per case	4.00 to 4.50
Wood, per cord, about	4.00
Coal (Cook Inlet), per ton	6.00 to 8.00

Freight.—By steamer from Seattle to Hope averages about \$18 per ton.

Town of Hope is situated on seacoast of Turnagain Arm, Cook Inlet. Freight is landed on wharf.

WRANGELL.

Best flour, per cwt	\$3.00
Sugar, per pound .....	.08 $\frac{1}{2}$
Coffee, per pound	0.20 to 0.40
Beans, per pound	0.04 to 0.06
Bacon, per pound .....	.18
Dried fruits, per pound	0.10 to 0.12 $\frac{1}{2}$
Butter, per pound .....	.30
Potatoes, per pound	0.02 to 0.02 $\frac{1}{2}$
Onions, per pound .....	.04
Baking powder, per pound	0.35 to 0.50
Condensed milk, per case	5.00
Tea, per pound .....	.40
Cheese, per pound	0.20 to 0.30
Vegetables in cans	0.12 $\frac{1}{2}$ to 0.20
Tomatoes, per case	3.00
Corn, per case	3.00
Beans, per case	3.00
Peas, per case	3.00
Fruits in cans, per case	0.20 to 0.25
Oranges, per dozen	0.40 to 0.50

Lemons, per dozen.....	\$0.30
Apples, per box.....	1.90
Eggs, per dozen.....	0.30 to 0.35
Wood, per cord.....	3.00 to 4.00
Coal, per ton.....	11.50
Kerosene, per gallon.....	.30
Wages:	
Common labor, per day.....	2.50
Mechanics (average), per day.....	4.00
Miners, per day.....	3.00 to 5.00
City water rent, per month.....	2.00
Electric light (16 candlepower), per month.....	1.20

SPECIAL LANDING PLACES FOR VESSELS IN ALASKA.

The Treasury Department at Washington has designated the following as special landing places for vessels to be under the supervision of a customs inspector:

Berners Bay, Copper Mountain, Chilkat, Hadley, Haines, Hatty Camp, Kell Bay, Loring, Petersburg, Hunters Bay, Chilkoot, Funter Bay, Howkan, Kasaan Bay, Killisnoo, Taku, Quadra Bay, Shakan, Kurluk, Metlakatla, Bluff City, Sulzer, Sumdum, Yankee Cove, Chignik, Ellamar, La Touche, Seldovia, Uyak, Kotzebue, Sound, Solomon, Rodman Bay, Sitkok Bay, Snettisham, Thorn Arm, Windham Bay, Catella, Cold Bay, Kayak, Seward, Yakutat, Bristol Bay, Port Clarence, Golovin, Nushagak, Copper Mountain.

These points are officially designated as places "for landing coal, salt, railroad iron, and other like articles in bulk," and the object in providing these additional facilities is to encourage legitimate enterprises in the Territory.

APPENDIX P.

THE SIZE OF ALASKA.

[Map copied from National Geographic Magazine.]



DRAWN TO EXACT SCALE, ALASKA, IF PLACED ON TOP OF THE UNITED STATES WOULD REACH FROM SAVANNAH, GEORGIA, TO LOS ANGELES, CALIFORNIA; FROM MEXICO TO CANADA; AND ITS RANGE OF CLIMATIC AND PHYSICAL CONDITIONS ARE EVEN GREATER. THE STRIP OF MAINLAND AND ISLANDS FRONTING THE PACIFIC OCEAN IS AS WARM IN WINTER AS KANSAS. THE ARCTIC COAST IS COLDER THAN DULUTH. DESIGNATE WHICH PART YOU REFER TO AS CAREFULLY AS YOU WOULD IN SPEAKING OF A PLACE IN THE UNITED STATES; BEARING IN MIND THAT IT IS AS IMPORTANT AS IT IS TO LET ONE KNOW WHETHER YOU MEAN ILLINOIS OR GEORGIA, MINNESOTA OR TEXAS.

APPENDIX Q.

List of articles of foreign corporation filed in the office of the secretary of Alaska under chapter 23 of the civil code, approved June 6, 1900.

Date.	Name.	Date.	Name.
July 20, 1900	Alaska Packers' Association.	May 1, 1901	Chilkoot Packing Co.
Aug. 29, 1900	Alaska Southern Wharf Co.	June 16, 1901	Cape Nome Alaska Mining and Dredging Co.
Aug. 29, 1900	Alaska Exploration Co.	July 30, 1901	Choumagin Mining Co.
Aug. 29, 1900	Alaska Commercial Co.	Aug. 2, 1901	Chisna Mining and Improvement Co.
Aug. 29, 1900	Alaska Development Co.	May 19, 1902	Coronation Mining Co.
Aug. 31, 1900	Alaska Interisland Navigation Co.	July 3, 1902	Columbia Canning Co.
Sept. 4, 1900	Alaska Treadwell Gold Mining Co.	July 25, 1902	Colorado and Cape Nome Mining Co.
Sept. 4, 1900	Alaska Mexican Gold Mining Co.	Nov. 19, 1902	Chilkat Inlet Railway and Navigation Co.
Sept. 4, 1900	Alaska United Gold Mining Co.	Dec. 8, 1902	Copper River Lumber Co.
Sept. 4, 1900	Alaska and Northwestern Territories Trading Co.	Dec. 26, 1902	Crow Creek Alaska Hydraulic Gold Mining Co.
Sept. 5, 1900	Alaska Pacific Express Co.	Mar. 11, 1903	Chititu Development Co.
Sept. 5, 1900	Alaska Steamship Co.	June 2, 1903	Campion Mining and Trading Co.
Sept. 18, 1900	Alaska Gold Mining Co. of Indiana.	June 10, 1903	Copper River Oil Mining Co.
Oct. 3, 1900	Acme Dredge and Pump Co.	June 19, 1903	California Alaska Gold Mining Co.
Oct. 25, 1900	Alaska Fisheries Union.	July 2, 1903	Charles F. Rice Gold Mining, Trading and Transportation Co.
Nov. 6, 1900	Auk Consolidated Mining Co.	Aug. 21, 1903	Caribou Mining Co.
Nov. 17, 1900	Alaska Juneau Gold Mining Co.	Sept. 4, 1903	Copper River Mining Co.
Dec. 3, 1900	Alaska Oil and Guano Co.	July 30, 1901	Delaroff Mining Co.
Dec. 17, 1900	Arctic Construction Co.	Mar. 17, 1902	Dolomi Lumber Co.
Mar. 2, 1901	Alaska Mining and Milling Co.	Mar. 29, 1902	Detroit Alaska Mining Co.
May 31, 1901	Alaskan Mining Co.	July 3, 1902	Discovery Transportation Co.
June 17, 1901	Alaska Salmon Co.	July 10, 1902	Elephants Nose Mining Co.
June 17, 1901	Alaska Sheep Creek Water Power Co.	Sept. 7, 1902	Esquimau Gold Mining Co.
June 25, 1901	Aurora Mining and Development Co.	June 17, 1903	Ellamar Mining Co.
July 30, 1901	Alaska Empire Mining Co.	Sept. 6, 1903	Eagle River Mining Co.
July 30, 1901	Appollo Consolidated Mining Co.	Aug. 16, 1900	Fidalgo Island Canning Co.
July 31, 1901	Alaska and Chicago Commercial Co.	Oct. 2, 1900	Frye-Bruhn Co.
July 31, 1901	Alaska Commercial Co.	Nov. 2, 1900	Frye-Bruhn Co. of Nome.
Sept. 31, 1901	Alaska Copper Co.	Sept. 30, 1901	Far North Gold Mining Co.
Sept. 11, 1901	Alaska Banking and Safe Deposit Co.	Jan. 3, 1903	Funters Bay Mining Co.
Sept. 11, 1901	Archer, Ewing and Co.	Aug. 15, 1900	Golden Fleece Mining Co.
Sept. 19, 1901	A. B. W. Mining Co.	Dec. 3, 1900	Gold Coin Mining Co.
Oct. 18, 1901	Alaska Perseverance Mining Co.	Mar. 2, 1901	Golden King Mining and Investment Co.
Dec. 24, 1901	Alaska Fish and Lumber Co.	June 30, 1901	Goldfields Mining Co.
Mar. 8, 1902	Alaska Mutual Gold Mining Union.	Aug. 19, 1901	Golovin Mining Co.
July 14, 1902	Alma Consolidated Mining and Development Co.	Aug. 18, 1902	Great Northern Mining, Milling and Transportation Co.
July 14, 1902	Anvil Sunrise Mining Co.	Oct. 6, 1902	Greek Boys Mining Co.
Sept. 23, 1902	American Mining and Development Co.	Nov. 12, 1902	Golovin Bay R. R. Co.
Nov. 12, 1902	Ames Mercantile Co.	Feb. 11, 1903	Golden Eagle Mining Co.
Nov. 25, 1902	Alaska Gold Mining, Development and Guaranty Co.	June 3, 1903	Grindall Mining and Smelting Co.
Dec. 20, 1902	Alaska Central Railway Co.	Dec. 2, 1901	Hammond Manufacturing Co.
Mar. 27, 1903	Alaska Petroleum and Coal Co.	Mar. 8, 1901	Heckman & Co., J. R.
Apr. 25, 1903	Alaska Portland Packers' Association.	Aug. 21, 1903	Hildah Mining Co.
Aug. 24, 1903	Alaska Fish and Packing Co.	Nov. 17, 1900	Icy Straits Packing Co.
Sept. 4, 1903	Alaska Mining and Development Co.	July 31, 1901	Independent Mining Co. (Limited).
Oct. 3, 1903	Alaska Rampart Mercantile Co.	Mar. 17, 1902	Island Trading Co.
Nov. 9, 1903	Alaska Coast Fishing and Packing Co.	Apr. 27, 1903	International Consolidated Developing, Mining, and Banking Co.
Aug. 1, 1900	Boston and Alaska Mining Co.	Sept. 20, 1900	Julian Mining Co.
Oct. 2, 1900	Bank of Cape Nome.	Apr. 22, 1902	Jorgenson Co., J. P.
Nov. 2, 1900	Blake Mining Co.	Aug. 30, 1902	Juneau Water Co.
June 14, 1901	Beau Mercantile Co.	Jan. 26, 1903	Julian Mines Co.
June 14, 1901	Bonanza Mining Co.	Oct. 14, 1903	Juneau City Water and Power Co.
June 24, 1901	Behring Sea Improvement and Trading Co.	Sept. 5, 1900	Ketchikan Improvement Co.
July 13, 1901	Bank of Teller.	Sept. 18, 1900	Ketchikan Copper Mining Co.
Nov. 7, 1901	B. F. Miller Baking Co.	Sept. 18, 1900	Khayyam Copper Co.
July 3, 1902	Bear Creek Hydraulic Mining Co.	July 1, 1901	Kimball Co., J. S.
Oct. 13, 1902	Bessie Gold Mining Co.	Feb. 5, 1902	Ketchikan Consolidated Mining Co.
Nov. 19, 1902	Brown Alaska Co.	Feb. 20, 1902	Ketchikan Wharf Co.
June 10, 1903	Blind Point Fishing Co.	Apr. 28, 1902	Kasaan Bay Mining Co.
Nov. 7, 1903	Bartles Tin Mining Co.	July 24, 1902	Ketchikan Gold Co.
Nov. 20, 1900	Crown Distilleries Co.	Oct. 20, 1902	Kougrook Mining Co.
Dec. 4, 1900	Chicago and Sitka Gold Mining Co.	June 26, 1903	Kimball Upsom Co.
Mar. 2, 1901	Chilkat Mining Co.	July 27, 1903	Kayak Standard Oil Co.
Mar. 17, 1901	Chittyna Exploration Co.	Oct. 3, 1900	Lynd & Hough Co.
		Oct. 18, 1900	Los Angeles and Cape Nome Mining Co.

List of articles of foreign corporation filed in the office of the secretary of Alaska under chapter 23 of the civil code, approved June 6, 1900—Continued.

Date.	Name.	Date.	Name.
Nov. 2, 1900	Libby Mining Co.	Dec. 8, 1902	Pacific Alaska Transportation and Coal Co.
Dec. 3, 1900	Lynn Canal Shore Line Railway Co.	Aug. 24, 1903	Pacific Cold Storage Co.
Jan. 31, 1901	Last Chance Gold Mining Co. of Alaska.	Nov. 17, 1900	Quadra Packing Co.
Oct. 2, 1902	Lisburn-Alaska Coal Co.	Aug. 29, 1900	Revilla Co.
Oct. 20, 1902	Lang Co., F. S.	Sept. 18, 1900	Rossland and Deer Park Mining Co.
May 21, 1903	Latauch Island Copper Mining Co.	Nov. 17, 1900	Rhoades Mining Co.
Aug. 29, 1900	Milwaukee Mining Co.	Mar. 2, 1901	Ross Higgins Co.
Sept. 20, 1900	Mellen Mining and Manufacturing Co.	Apr. 18, 1901	Resurrection Creek, Alaska, Mining Co.
Nov. 2, 1900	Mordaunt Mining Co.	Feb. 20, 1902	Revilla Lumber Co.
Mar. 17, 1901	Metlakatla Industrial Co.	Apr. 14, 1902	Ruby Sand Mining Co.
June 16, 1901	Monte Cristo Gold Mining Co.	May 6, 1902	Russian-American Mining and Exploring Co.
Nov. 16, 1901	Monarch Gold Mining and Dredging Co.	July 31, 1902	Rainbow Mining and Development Co.
May 18, 1902	Minnesota and Colorado Co.	May 8, 1903	Rampart City Gold Mines Co.
Aug. 30, 1902	Miocene Ditch Co.	Oct. 26, 1903	Reynolds Alaska Development Co.
Oct. 6, 1902	Mammoth Creek Mining Co.	Aug. 19, 1900	Seattle Yukon Transportation Co.
Nov. 25, 1902	Minnesota Mining Co.	Aug. 29, 1900	Sweetake Mining Co.
July 16, 1903	Moonlight Water Co.	Oct. 25, 1900	San Francisco M. T. & T. Co.
Oct. 3, 1900	McCollam Fishing and Trading Co.	May 24, 1901	Seward Alaska Co.
Aug. 14, 1900	North American Commercial Co.	July 17, 1901	Seward Mining Co.
Aug. 29, 1900	Northern Wharf Co.	July 30, 1901	Sitka Consolidated Mining Co.
Oct. 3, 1900	Nome Sinook Mining Co.	Oct. 18, 1901	Sea Level Mining and Milling Co.
Oct. 3, 1900	National Cape Nome Gold Mining and Transportation Co.	May 6, 1902	Sesnon & Liebes.
Nov. 2, 1900	Newman Gollin Carlson Co.	May 28, 1902	Shattuck & Co.
Nov. 17, 1900	Nome Water Co.	July 25, 1902	Swede Gulch Mining Co.
May 1, 1901	Northern Commercial and Mining Co.	Sept. 15, 1902	Standard Oil Co., of Iowa.
June 25, 1901	Northern Commercial Co.	Jan. 20, 1903	Silverman Alaska Co.
July 20, 1901	Northwest Development and Mining Co.	June 10, 1903	Sesnon Co., John J.
Aug. 19, 1901	Northern Light Mining Co.	July 16, 1903	Sparkle Creek Mining Co.
Aug. 19, 1901	Norton Sound Mining and Trading Co.	Aug. 21, 1903	Skagway Light and Water Co.
Sept. 5, 1901	Northwest Commercial Co.	Sept. 18, 1900	Tongass Trading Co.
Sept. 30, 1901	Northwest Mining Co.	Sept. 18, 1900	Taku Packing Co.
Sept. 30, 1901	Northwest Light and Power Co.	Nov. 6, 1900	Tyee Consolidated Mining Co.
Nov. 27, 1901	Nome News Publishing Co.	May 31, 1901	The New York and Alaska Mining Co.
Mar. 8, 1902	Nugget Bar Mining Co.	May 31, 1901	The Alaska Snettisham Gold Mining Co.
May 19, 1902	Northern Mining and Trading Co. of Arizona.	Aug. 2, 1901	The Cape Nome Hydraulic Co.
July 10, 1902	Northern Wrecking and Diving Co.	Aug. 30, 1901	The T. A. Campion Mining Co.
Aug. 18, 1902	Nome Exploration Co.	Sept. 5, 1901	Turnagain Arm Gold Mining Co.
Oct. 2, 1902	North American Transportation and Trading Co.	Nov. 6, 1901	The Arctic Mining and Trading Co.
Nov. 19, 1902	New York-Alaska Development Co.	Nov. 29, 1901	Trans-Alaska Co.
Feb. 17, 1903	Nicolia Mining Co.	Nov. 29, 1901	Trans-Alaska Mercantile Co.
Feb. 26, 1903	Nazina Trading Co.	Dec. 9, 1901	The Ketchikan Steamship Co.
July 28, 1903	Nome-Montana-New Mexico Mining Co., Consolidated.	Dec. 24, 1901	The Tanana Mining Co.
Aug. 5, 1903	Nome, Alaska, Railway Co.	Jan. 22, 1902	The McKinley Creek Mining Co.
Aug. 9, 1903	Northern Homestake Mining Co.	Feb. 5, 1902	The Good Enough Gold Mining Co.
Oct. 21, 1903	North Pacific Packing and Trading Co.	Mar. 8, 1902	The Thlinket Packing and Trading Co.
Nov. 9, 1903	Nome and Sinook Mining Co.	May 22, 1902	The Alaska Banking and Safe Deposit Co.
Nov. 26, 1901	Olympic Mining Co.	May 22, 1902	The District Mining Co., of Nome, Alaska.
Aug. 29, 1900	Pacific Coast Steamship Co.	June 21, 1902	The Alaska Syndicate (Limited).
Aug. 29, 1900	Pacific Steam Whaling Co.	June 27, 1902	The Hot Air Mining Co.
Sept. 20, 1900	Pacific Coast Co.	July 25, 1902	The Behring Sea Mining and Development Co.
Oct. 2, 1900	Pacific and Arctic Railway and Navigation Co.	Aug. 2, 1902	The Twin Mountain Gold Mining and Milling Co.
Nov. 2, 1900	Pioneer Commercial Co.	Aug. 30, 1902	Topkuk Ditch Co.
Dec. 18, 1900	Providence and Sitka Mining Co.	Sept. 15, 1902	The Dexter Placer Co.
Feb. 15, 1901	Pande Basin Gold Mining Co.	Oct. 25, 1902	The Setuck Co.
June 1, 1901	Pacific Trading Co.	May 12, 1903	The Lemon Creek Co.
June 24, 1901	Point Clarence Mining Co. of Alaska.	May 12, 1903	Tide Water Consolidated Coal Co.
Sept. 5, 1901	Pacific Coast and Norway Packing Co.	June 15, 1903	The Richter Creek Mining Co.
Oct. 18, 1901	Pacific Packing and Navigation Co.	July 2, 1903	The Jupalpa Co.
Mar. 22, 1902	Pioneer Coal and Mining Co.	Oct. 21, 1903	The First National Bank of Juneau.
May 6, 1902	Pioneer Mining Co.	Sept. 5, 1900	Union Wharf Co.
July 3, 1902	Palmer Creek Mining Co.	Aug. 18, 1902	Utalaska Mining Co.
Aug. 22, 1902	Pillar Bay Packing Co.	May 21, 1903	United Fish Co.
Oct. 20, 1902	Pine Creek Development Co.	July 7, 1903	U. S. B. C. Corporation.
Nov. 1, 1902	Pacific Coast Gypsum Manufacturing Co.	Dec. 3, 1900	Van Schuyver & Co., W. J.
		May 31, 1901	Victory Copper Mining Co.
		Aug. 13, 1901	Vista Mining Co.
		June 2, 1902	Valdez Dock and Warehouse Co.
		Jan. 28, 1903	Valdez Nizini Mining Co.
		Feb. 28, 1903	Valdez Electric Light, Power and Telephone Co.

List of articles of foreign corporation filed in the office of the secretary of Alaska under chapter 23 of the civil code, approved June 6, 1900—Continued.

Date.	Name.	Date.	Name.
Aug. 19, 1900	Wild Goose Railway Co.	Nov. 7, 1901	Wales Copper Mining Co.
Aug. 19, 1900	Wild Goose Mining and Trading Co.	Mar. 22, 1902	White Pass Wagon Road Co.
Oct. 3, 1900	Washington and Alaska Steamship Co.	Aug. 11, 1902	Wales Island Packing Co.
Feb. 9, 1901	Western Alaska Mining and Industrial Co.	Sept. 11, 1902	Windham Chief Consolidated Gold Mining Co.
May 1, 1901	Woman's American Baptist Home Mission Society.	July 20, 1903	Western Alaska Construction Co.
July 17, 1901	Windham Chief Gold Mining Co.	Aug. 1, 1903	W. P. Mills Co.
		Nov. 16, 1901	Yellow Jacket Mining Co.
		Feb. 6, 1903	Yakutat Southern Railway Co.
		Apr. 1, 1903	York Alaskan Tin Corporation Co.

APPENDIX R.

CATALOGUE OF THE EXHIBITION OF THE DISTRICT OF ALASKA AT THE LOUISIANA PURCHASE EXPOSITION, ST. LOUIS, MO., 1904, WITH A FOREWORD UPON ALASKA AND THE ALASKAN EXHIBIT.

APPROPRIATION FOR THE ALASKAN EXHIBIT AT THE LOUISIANA PURCHASE EXPOSITION, MADE BY ACT OF CONGRESS MARCH 3, 1903.

"DISTRICT OF ALASKA EXHIBIT.

"To enable the inhabitants of the district of Alaska to provide and maintain an appropriate and creditable exhibit of the products and resources of that district at the Louisiana Purchase Exposition in the city of Saint Louis, Missouri, in nineteen hundred and four, and to erect and maintain on the site of said exposition a suitable building to be used for the purpose of exhibiting the products and resources of said district, the sum of fifty thousand dollars, to be subject to the order of the Secretary of the Interior, who is hereby authorized to expend the same in such manner as in his judgment will best promote the objects for which said sum is appropriated, in accordance with the rules and regulations to be prescribed by him."

OFFICIALS AND ASSISTANTS FOR THE ALASKA EXHIBIT.

Hon. THOMAS RYAN, First Assistant Secretary of the Interior, chairman commission for Alaska exhibit.

Hon. JOHN G. BRADY, governor of Alaska, executive commissioner for Alaska exhibit.

JOSEPH B. MARVIN, special agent for the Alaska exhibit.

Mrs. MARY E. HART, hostess.

Honorary commissioners.—M. E. Martin, mayor of Ketchikan; O. H. Adsit, mayor of Juneau; John Goodell, mayor of Valdez; D. B. Miller, mayor of Eagle City; Anthony Tubbs, mayor of Treadwell; Peter Jensen, mayor of Wrangell; Frank Bach, mayor of Douglas; L. S. Keller, mayor of Skagway; W. H. Bard, ex-mayor of Nome; H. P. King, mayor of Nome.

Attendants at the Alaska exhibit.—Mr. Frank Ingram, Mr. Frederick E. Willard, Rev. D. W. Cram, Mr. Eugene Hart, Mr. Frank H. McConnell, Mr. Harry Pidgeon, Mrs. O. E. King, Mr. P. D. Range.

Employed in collecting minerals and forestry in Alaska.—J. G. Davies, D. W. Fales.

After the passage of the act of Congress which made appropriation for the Alaska exhibit providing that the sum appropriated should be expended by the Secretary of the Interior in such manner as in his judgment would promote the objects for which the sum was appropriated, in accordance with rules and regulations prescribed by him, one of his first acts was the appointment of Hon. Thomas Ryan, First Assistant Secretary of the Interior, chairman of the Alaska commission, to have immediate charge at the Department of the elaboration of the exhibit.

Later Governor John G. Brady was appointed executive commissioner, and entered upon the task of gathering together and forwarding to the exposition such a collection of exhibits as would best represent and illustrate the products and resources of Alaska.

Still later Mr. Joseph B. Marvin was appointed special agent of the Alaska exhibit, and was sent to St. Louis in December, 1903, to superintend the construction of the Alaska building, to attend to all accounts with the Department, and to arrange for the installation of the exhibits as they arrived.

Mrs. Mary E. Hart was employed January 1, 1904, to assist in the securing of exhibits in Alaska, especially in the department of education, and upon the opening of the exposition Mrs. Hart was directed to proceed to St. Louis, where she was designated as hostess and placed in charge of the bureau of information in the Alaska building.

At the same time attendants were selected whose duty it was to explain the exhibits to visitors. This arrangement as to attendants has proved very satisfactory to the commission, as the Alaska building has attained the distinction of being one of the places in the exposition where visitors may be sure of receiving courteous attention and intelligent replies to all their inquiries.

The executive commissioner, the honorary commissioners, the hostess, all of the attendants, and those employed in collecting exhibits in Alaska were all Alaskans, the attendants being especially selected because of their acquaintance with Alaska and its products. The wisdom of these selections has been confirmed, as, being Alaskans, they have performed their duties with zeal and pride in their adopted country.

It has been the desire of the executive commissioner that the utmost hospitality should be shown to all visitors at the Alaska building, and the commodious and home-like parlors on the second floor of the building have been free to the public, maids being employed for special attention to the wants of ladies and children. The commission is gratified at the evidences given that this courtesy has been fully appreciated by the many thousands who have visited the Alaska exhibit.

PREFACE.

In authorizing the publication of a catalogue of the Alaska exhibit at the Louisiana Purchase Exposition the commission for the Alaska exhibit has been influenced by the desire to continue the educational influence as to Alaska afforded by the Alaska exhibit, and to add somewhat to the literature relating to Alaska.

The Alaska exhibit has been an object lesson, and a surprise to such of the visitors at the World's Fair as have supposed that Alaska was a frigid region and incapable of development. It has demonstrated the fact, by its display, of grain and vegetables and fruits, that the pioneer to Alaska will not be dependent upon his success in finding gold, but that, availing himself of the homestead laws, and securing 320 acres of land, he can always resort to agriculture with satisfactory results.

To those who desire further information regarding Alaska than this pamphlet affords, the commission has to suggest that it may always be obtained by application to members of Congress, who will be able, upon request, to supply reports from the Department of Agriculture, and the Geological Survey, and the Signal Service Bureau of the United States, containing very valuable information relating to Alaska.

The commission further mentions that a very instructive pamphlet, entitled "Facts on Alaska," will be freely furnished upon request at the Alaska building during the remaining period of the exposition.

FOREWORD.

ALASKA AND THE ALASKAN EXHIBIT.

The district of Alaska appears as an exhibitor in a national exposition for the first time. The conception of the Louisiana Purchase Exposition and its plans were presented for the consideration of the Congress of the United States at a time when the reports of committees of Congressmen sent to Alaska to investigate its resources and needs had aroused the Congress to the duty of enacting legislation for the development of this great region. In appropriating the sum of \$50,000 for an Alaskan building and an Alaskan exhibit at the Louisiana Purchase Exposition, it was the purpose of the Congress to afford an object lesson as a means of education to the millions of people who should attend the exposition as to the extent and resources of this Territory. The sequel has shown that the money was wisely expended, as the Alaskan exhibit, at the expiration of five months since the exposition was opened, has the distinction of being regarded by thousands of its visitors as forming one of the most interesting, instructive and surprising exhibits shown at the great World's Fair.

When the United States, thirty-seven years ago, paid to Russia the sum of \$7,200,000 for the almost unknown territory of Alaska, the purchase was not popularly approved, and even members of Congress denounced it, regarding the acquisition as a region of icebergs and glaciers. Later, when gold was discovered in Alaska, the region was popularly regarded as being one of ice and of almost inaccessible gold, and few had the hardihood to venture within its precincts, even with the possibility of finding gold as an inducement for the venture.

Still later, after reports of the Revenue-Cutter Service and reconnaissances of army officers and naval commanders, the United States Geological Survey sent men into Alaska to investigate its resources, the Department of Agriculture tested its capacity for agriculture, the Bureau of Education established schools and introduced reindeer from Siberia, the Signal Service began to build telegraph lines and to inspect the country as to the availability of its rivers and harbors for navigation, and it came to be seen by the Government that Alaska was richer in resources by far than had been supposed. This knowledge was not common to the public, and emigration into that region was tardy.

While the Alaskan exhibit has afforded important information as to the resources of Alaska, it has likewise developed knowledge of the extent of the ignorance in the popular mind as to Alaska's resources, for nearly every person who has visited the exhibit has expressed surprise when he has been shown cereals, fruits and vegetables grown in that region. It has been a common remark by visitors that they had supposed Alaska was a frigid region, containing only glaciers and gold. Many visitors at the Alaska building have even betrayed ignorance of the fact that Alaska is a possession of the United States. A letter was received by the commissioner in charge of the Alaskan exhibit from a collector of postage stamps requesting that he would preserve for him some Alaska postage stamps, his idea being evidently that Alaska was a foreign country. When the writer received a reply informing him that the postage stamps issued by the United States were used by the people of Alaska, since Alaska was a possession of the United States, he was probably not more surprised than have been thousands of visitors to the Alaska building.

Thousands, if not millions, of the people of the United States are evidently in ignorance of the fact that the Territory of Alaska, belonging to the United States, has an area of 329,529,000 acres, and is seven times as large as the State of Missouri; that 272,000,000 acres lie within the Temperate Zone and are capable of agricultural development; that it has 26,000 miles of seacoast; that thousands of miles of this coast are warmed by the Japan currents, rendering possible the raising of all cereals and of all the fruits and vegetables grown in the Temperate Zone; that Alaska is one of the richest gold-producing regions in the world; that, in fact, all known minerals are found there—copper, silver, platinum, tin, lead, zinc—and that coal, petroleum, and marble are there in great quantities. The same people are ignorant of the fact, developed by experts sent into the Territory by the United States Government, that the salmon, cod, halibut and seal fisheries, and the yield of furs throughout the Territory are greater than in any other portion of the United States.

The most reliable authorities may be quoted in support of all that is here affirmed as to the resources of Alaska.

President Roosevelt, who is kept fully advised as to the development of this Territory, in his last message to the Congress, said: "No country has a more valuable possession in mineral wealth, in fisheries, furs, forests, and also in land available for certain kinds of farming and stock growing. It is a Territory of great size and varied resources, well fitted to support a large permanent population;" and he asked the Congress to enact such legislation as would best further the development of that region.

The governor of Alaska, who has better opportunities for noting the development of the Territory than anyone else, since reports come to his office from all parts (and one of whose characteristics is that, although an Alaskan enthusiast, he always makes his statements regarding it in the positive mood, thereby calling down upon himself criticism by the press of Alaska because he does not use the promoters' superlative in reporting upon Alaska), in his last report to the Secretary of the Interior, after noting the operations and output of various gold mines in the Territory during the year, says:

"This is surely a wonderful showing. Where on earth is there anything to be compared with it? It puts hope and courage in every mining man, teaches the prospector that there is no ore too low grade for his notice and investigation, and teaches the timid investor that he can come to Alaska and engage in the business of mining with confidence."

And in regard to copper he says:

"There is no doubt but that the Prince of Wales property and the Copper River properties will have the greatest influence upon the markets of copper.

"Locations of marble have been made on Prince of Wales Island, and the quality and grade of the marble are well spoken of."

Regarding coal in Alaska the governor says:

"All we hear of the great deposits of coal in the southern coast of Alaska is simply astounding. Alaska bids fair to furnish the whole Pacific coast with an abundance of the highest grade of coal for all purposes. We hear of semianthracite coal as much as 22 feet in thickness of vein, and some have asserted that they have veins which are 40 feet in thickness. There is no doubt, however, that the coal is abundant and of very fine quality."

Referring to the discovery of petroleum, he says:

"The greatest interest this year has been centered upon the oil fields. There seems to be seepages of oil all the way from Yakutat west through the Alaska Peninsula, and almost the whole shore line there has been staked."

The governor likewise states, without exaggeration, as follows:

"It is beginning to dawn upon many that Alaska is susceptible of very great agricultural possibilities.

"Hundreds of miles north of Skagway the attempts at gardening and farming have been surprisingly successful. Finest vegetables are now cultivated at Dawson. Good gardens at Eagle City and at other places along the Yukon are reported. For years successful culture has been practiced at Holy Cross Mission, on the Yukon.

"The great river valleys, like Yukon, Tanana, and Copper River, embrace cultivable areas large enough for good-sized States.

"The codfish banks are like the agricultural areas of Alaska, almost untouched, and just lying as an immense resource to be taken in hand. The measurements of the various banks aggregate many thousands of square miles of fishing ground. The climate of Alaska is even better than on the great plains of Wyoming, Montana, and some parts of Nevada. In all parts of Alaska there are more hospitable winters."

Hon. James Wilson, Secretary Department of Agriculture, United States Government, says:

"I am fully of the opinion that it is a matter of great and growing importance that some arrangements be made for opening Alaska for the stock raisers and farmers. The development of Alaska is of much importance to the growth of the Pacific Northwest. The entire nation will be benefited by it."

Maj. W. R. Abercrombie, U. S. Army, in a report to the Government, states:

"The water is good, the soil fertile, game abundant; all hardy grains can be raised along the line of the all-American route.

"In my experimental garden at Valdez I raised peas, carrots, lettuce, radishes, and other garden stuff."

Col. P. H. Ray, U. S. Army, late in command of the Department of Alaska, says:

"There are greater resources in Alaska to-day, independent of its gold, than in the Pacific coast States, if the timber is left out. In almost all parts of the valley of the Yukon you can ripen oats, wheat, and all kinds of grain. I have seen blue-joint grass grow 2 tons to the acre, and I have seen 1,400 bushels of potatoes grown on 4 acres; timothy I have seen standing 4 feet high and growing wild for miles around.

"Although the United States has owned Alaska for more than thirty years, my command but a short time ago cut the first road from Yukon River.

"The resources of Alaska in fish are boundless and greater than the North Sea and Newfoundland combined. All we want is to settle Alaska with people who will develop all its natural resources, and there will be no grander country in any part of the United States. The valley of the Yukon is richer than the valley of the Missouri."

Mr. Harrington Emerson, in a report to the United States Government, states:

"Kodiak, on the coast, is in the same latitude as Aberdeen, Scotland. Lowest temperature ever recorded at Kodiak, 5° above zero. Average winter temperature at Kodiak is higher than at Washington, D. C. Lowest temperature ever recorded at Dutch Harbor, 9° above zero. Dutch Harbor is in the latitude of Liverpool. Sitka has not cold enough in winter to supply ice for summer. Alaska is rich in minerals, lumber, fisheries, furs, coal. The Japan current of the Pacific is warmer and greater than the Gulf Stream in the Atlantic."

Mr. C. G. Georgeson, special agent of the United States Department of Agriculture for Alaska, says:

"Alaska has been maligned, abused, and totally misunderstood. It has already paid for itself many times over, and still we have scarcely begun to realize how enormous the resources are. What the profits to the lessees of the sealing privilege have been will probably never be made known, but it is interesting to note that the rentals received or due the Government for the lease of this privilege from 1870 to 1895 amounted to almost the original cost of the Territory. It is reported that more than an equal sum has been taken from a single mine near Juneau, to say nothing of the millions taken out in other places.

"There never could be a greater misconception in regard to a geographical fact than the popular idea that Alaska is a snow-covered waste. As a matter of fact, one can travel from one end of the Yukon to the other in summer and never see snow. On the contrary, one will see a tangle of luxuriant vegetation, large forests, and such delicacies as wild raspberries, red currants, huckleberries, and cranberries in profusion. In places the grass grows as high as a man's shoulders.

"Winter wheat seeded at Rampart, in latitude 65, lived through the winter perfectly under a good covering of snow. Although the temperature fell to 70° below zero, the wheat came out in the spring in perfect condition and matured grain by August.

"At Sitka I have for three years past grown as fine spring wheat as one would wish to see, and barley and oats have been grown there successfully for four years. These grains have been grown successfully at the experimental station at Kenai Peninsula, where there are thousands of square miles of land available for farming and grazing."

Hon. Dudley C. Wooten, M. C., after a tour through Alaska, writes:

"I do not hesitate to declare that in Alaska the United States possesses a storehouse of every form of material wealth that can not be surpassed and hardly equaled by any like area of land and water on the face of the globe."

"The country has been neglected and misunderstood. Its conditions have been misrepresented and disparaged. Its sturdy pioneers and dauntless miners have been unjustly taxed and unnecessarily burdened by the Government, and even its territory has been pilfered and its political integrity menaced by the aggressions of British greed and the ignorance or indifference of American diplomacy. The time has come when the facts should be known and justice should be done to that splendid country and its enterprising, intrepid, masterful pioneers."

Surveyor-General Distin tells of Alaska's future and its needs, as follows:

"The outlook for Alaska generally is hopeful. The prospects in southeastern Alaska are encouraging. The old developed mines continue to yield satisfactorily, and development work is being prosecuted on many new lodes. Porcupine district is fulfilling its promise as a gold producer, and will no doubt be a prosperous region for years to come."

"Transportation facilities are all that is needed to develop the large mineral belts in the regions drained by the Copper and Tanana rivers. That there are vast deposits of gold and copper in those sections no longer admits of a doubt, and indications for the future prosperity of those localities are bright. That those on the ground have faith in it is evidenced by the number of surveys of claims for patent which have been received in my office. When an all-American railroad through these valleys to interior points shall have been constructed, with direct steamship connection with Seattle, Tacoma, Portland, and San Francisco, large developments will speedily follow and such great activity in all lines of business result as to insure success for such an enterprise."

GEOGRAPHY.

Alaska is located in the extreme northwestern portion of the United States, and is bounded on the north by the Arctic Ocean, on the west by Bering Strait, on the south by the Pacific Ocean, and on the east by the Northwestern Territory. In extent it is about 800 miles from its eastern boundary to Bering Strait, and it is about 1,000 miles from north to south, not including the Aleutian Islands, which reach from its southwesterly portion westward into the Pacific Ocean about 1,500 miles. It contains one of the highest mountains on the American continent, Mount McKinley; one of the largest rivers on the continent, the Yukon, which is navigable for 2,500 miles and which runs through the center of the Territory from east to west, emptying into the Bering Sea. Its rivers have numerous tributaries, some of which are navigable. The region is mountainous, but contains extensive river valleys of productive soil, which, in their uncultivated state, produce excellent grasses and wild fruits and berries in great quantities.

CLIMATE.

The climate of Alaska is nearly as varied as the Atlantic coast extending from Maine to North Carolina. Southeast Alaska and the Aleutian Islands are tempered by the Japan currents flowing from west to east along the southern coast. North and west of the Coast Range of mountains the climate is healthy, invigorating, and dry, and on the Yukon River near the Arctic Circle the temperature ranges from 102° in summer to 70° below zero in winter. In southeast Alaska, where the effect of the Japan currents is felt, the temperature is more mild than in other temperate regions of the same latitude.

POPULATION.

In the year 1900 the population of Alaska, according to the census, was 63,592, of which number 30,507 were whites and 33,085 were natives. Fully 25,000 people spend five or six months in the district every year who are not included in the census of the permanent population.

PUBLIC LANDS.

Mineral lands are located in conformity with the general mining laws enacted by Congress in 1872.

A bill approved March 3, 1903, provides—

"That every person who is qualified under existing laws to make homestead entry of the public lands of the United States who has settled upon or who shall hereafter settle upon any of the public lands of the United States situated in the district of Alaska, whether surveyed or unsurveyed, with the intention of claiming the same under the homestead laws, shall, subject to the provisions and limitations hereof, be entitled to enter 320 acres or a less quantity of unappropriated public land in said district of Alaska."

EDUCATION.

Alaska is well supplied with schools. The schools in the incorporated towns are supported by a liberal license tax. Schools for the natives are maintained by various missions and by the United States, there being a special appropriation by Congress for this specific purpose. The white schools are graded and include a number of high schools.

MINING.

The mineral industry of Alaska is more extensive than any other at present, and is steadily increasing. The gold mining industry consists mainly of placer mining, but quartz mining is destined to become even more important in the future, as it is the history of all placer mining regions that gold quartz exists below the surface. It is estimated that the gold product of Alaska aggregates about \$149,000,000, most of which has been mined since the year 1888. Nome, Council City, Fairbanks, Coldfoot, Rampart, Nizina, and Fortymile have all been centers of interest in placer mining. Hydraulic mining is coming more into notice in Alaska each year. There are vast areas suitable for this kind of washing. Mining with dredges and steam shovels is likewise carried on. Smelters for the mining of copper are in operation upon Prince of Wales Island and in the Copper River region. The yield of copper on the properties of these places is undoubtedly destined to influence the copper market of the world. Lead and silver are mined in connection with other ores. Platinum, gypsum, and marble have been located, and mines and manufacturing plants are being organized for their development. The coal-mining industry is destined to be enormous, but it is only recently that the extensive coal mines have been located.

Lead, zinc, and iron are found throughout southeast Alaska, but they have not yet been extensively mined, owing to want of transportation facilities, which is a great drawback to all mining enterprises.

Asbestos is found on the mainland, Beadfield Canal, also in Kuperanoff Island.

Marble promises to become an important product of Alaska. Large quarries are located on Prince of Wales Island throughout an area of 400 acres. Gray marble is found on Hams Island and the mainland contiguous. It is exceptionally hard and stands a test of 10,000 pounds to the square inch.

Coal is found in every section of the Territory. In variety it comprises lignite, anthracite, bituminous, and cannel coal, and the principal mines so far discovered are located on navigable streams and near the tide water, thus enabling this industry to be placed on a favorable footing as a competitor with the coal fields of British Columbia.

Petroleum is found in many locations, but this industry is yet undeveloped.

Oil of superior quality has been found at Kayak and Cook Inlet.

Stream tin has been found on several streams on Cape Prince of Wales in the York mining district, but it yet remains to be found whether or not this will afford a paying industry.

Graphite is found in large quantities near Nome, and jade in limited quantities in the Cape York mining district.

Uranium is found in small quantities in Baranoff Island.

Platinum is found in small quantities in Cape York district.

FISHERIES AND CANNING.

The next most important industry is fishing and canning. Salmon, halibut, and cod fishing are carried on extensively in fishing season all along the Pacific coast from the eastern extremity of Alaska to Bristol Bay near the point on the coast where it turns northward. Numerous canneries are established along this coast, one of the principal canneries being on Kodiak Island. From 15,000 to 20,000 people are employed in these canneries during the canning season. It is an interesting fact that the rentals paid by the fishing companies to the United States have already paid the United States the amount paid for the Territory several times over.

FURS.

Great quantities of furs are taken in Alaska, embracing furs of the polar bear, black bear, brown bear, and black wolf; white, red, blue, and silver-gray foxes; badger, beaver, sables, and seals. It is known that Alaska has yielded great wealth to this industry, but the extent can not be stated with any certainty, as it has been the policy of the fur trader to conceal his operations, and the conditions of the trade are such that he is able to do so.

STOCK RAISING AND AGRICULTURE.

These industries have been begun on a small scale, and they will undoubtedly become extensive, as Alaska has millions of acres of grasses suitable for stock, and the Department of Agriculture has demonstrated the fact, by experiments, that agriculture is not only possible but may be profitable in the valleys south of the Yukon River.

TRANSPORTATION.

The greatest need of Alaska is railroads. Its harbors are visited by the vessels of great steamship companies, and great steamers ply the waters of the great Yukon, affording facilities for transportation, both for passengers and freight, and thousands of tourists avail themselves of the facilities afforded, and the number of such pleasure seekers is increasing every year. Alaska is beginning to be known as "The Switzerland of America."

Meanwhile, facilities for transportation into the interior by railroads continue utterly inadequate. The White Pass and Yukon Railroad is the longest at present, but there are only 30 miles of this line within the limits of Alaska, the other 80 miles running through the Canadian Northwest Territory, and the line is owned and controlled by Canadian interests. This line forms a connecting link between the Pacific Ocean and the head of navigation of the Yukon River.

The second railroad was built by a mining company and connects Nome with the rich mining creeks of that section. It is only 8 miles long and is a narrow-gauge road, but it has paid for itself many times over, being invaluable to the miner, enabling him to transport machinery to the mines. In 1903, 12 miles of railroad were built up Solomon River on the Seward Peninsula, and it is proposed to continue this road to Council City and the rich Ophir mining district, giving that region communication with tide water. This road will open and develop a wonderfully rich region. A railroad has been projected from Valdez, which lies at the head of one of the largest harbors in the world, to Eagle City, on the Yukon River. This road, when completed, will traverse the rich Copper and Tanana valleys and penetrate the territory of Fortymile River and through a country not only rich in minerals, but in the very heart of the richest agricultural lands.

A railroad is now being built from Seward, on Resurrection Bay, to a point on the Yukon River near the mouth of the Tanana River. This road will likewise open up rich mining and farming lands. It is planned to have 100 miles of this road ready for traffic within another year. At Kayak a coal

company has built 25 miles of railroad, which makes possible the development of rich anthracite coal mines, connecting them with deep tide water. In this connection it should be mentioned that the Government has constructed telegraph lines reaching from Seattle to Nome, the last section of this line having been recently completed.

FORESTRY.

The southeastern part of Alaska, extending as far west as Prince Williams Sound, is heavily timbered—in fact, it is so heavily timbered (in consequence of the fact of the Japan currents and the rainfall) that the forests of southeast Alaska are like a tropical jungle, and are only penetrated when roads are cut through them. The timber consists mainly of spruce, hemlock, red cedar, birch, and yellow cedar. A number of sawmills have been located in this region. Owing to the lack of transportation, this industry is not extensive. It bids fair to be, in time, a great and profitable industry.

GOVERNMENT.

While Alaska is a territorial possession of the United States, it has not yet been accorded a Territorial form of government. Its correct designation is "The district of Alaska." A governor and judges and marshals and commissioners are appointed by the President. The governor is required to make an annual report to the Secretary of the Interior, and by means of this report and by reports from the military and other departments located in Alaska, the President and Congress are kept fully advised as to the development of the district.

CITIES AND TOWNS.

Valdez.—Located on the southern coast of Alaska, near the mouth of the Copper River; is a seaport town and the proposed terminal of the Valdez and Eagle City Railroad. As a seaport town it has a harbor which General Greeley says will accommodate the navies of the world. It is open at all seasons of the year, and as a railroad terminal Valdez will some day undoubtedly become a town of the greatest importance.

Kayak.—Has a harbor and is the terminus of a railroad about completed to the anthracite coal fields, 25 miles distant. This field has three veins, 16, 8, and 5 feet thick, respectively. Extensive oil fields have recently been developed, and the refinement shows a high grade of oil with a paraffin base.

Seward.—Is located at the head of Resurrection Bay and is the terminal of the Alaskan Central Railroad, a projected railroad extending from Seward to Rampart, opening up an extensive agricultural district. Seward, like Valdez, is a seaport town, with a harbor open at all seasons of the year. The Alaska Central Railroad is now in course of construction, and a portion of the road is already in operation.

Sitka.—The capital of Alaska, is located on Baranoff Island, along the southeastern coast of Alaska. It was founded by Governor Baranoff, a Russian explorer, in 1799, and is the oldest town in Alaska. The town is noted for its beauty, and boasts of many historic places of interest. The climate at Sitka is remarkably mild. Here also may be found the famous hot springs, whose waters are noted for their wonderful medicinal properties.

St. Michael.—Is located on an island not far from the mouth of the Yukon River, serving principally as a terminal for the Yukon River steamers, affording also winter quarters for many of the river steamers. Here are also located the large warehouses of the leading trading companies of Alaska. The transfer to ocean steamers is made at this point.

Seward City.—Near Berners Bay, located between Juneau and Skagway, is a new mining town, which promises to rival some of the older towns along the coast, because of the richness of the low-grade gold ledges recently uncovered in that vicinity and great amount of ore in sight.

Juneau.—The metropolis of southeastern Alaska, is located at the headwaters of the Gastineau Channel, and is one of the oldest cities in Alaska. It is a mail-distributing center for all points westward and forms a base of supplies for many of the extensive mining operations in that vicinity. It is a town supported largely by the mines, but here also may be found various industries. The school system of Juneau, like that of several other towns in Alaska, compares favorably with the larger cities along the coast. Large wholesale and retail establishments for the handling of all manner of supplies are located here. One of the public buildings of Juneau, recently completed by the United States Government, cost \$60,000.

Treadwell.—Is located on Douglas Island, across the channel from Juneau; is an incorporated town with a population of about 1,500. Here are located the famous Treadwell gold mines, the largest low-grade gold mines in the world. The town is strictly a mining town. The population is confined to the employees of the mines. Here are located large machine and boiler shops, car shops, foundry, sawmill, and all other industries which help to make and equip a large mining plant. Treadwell has an excellent water system, electric-light plant, public school, etc.

Douglas.—Douglas City is located on Douglas Island, immediately adjoining Treadwell, and, like Treadwell, is an incorporated town, with a population of about 1,500. The city is supported largely by the Treadwell mines, furnishing homes for many of the miners and their families. Here is to be found an excellent school system, also a well-organized fire department, and various other improvements. Juneau, Douglas, and Treadwell are connected by telephone system, also by a ferry operated hourly.

Eagle City.—Located on the Yokon River, and the first town in United States territory in coming down the river; contiguous to Seventymile and American River mining country; is a terminus of the projected Valdez and Yukon Railroad. Here is located Fort Egbert, a three-company United States post, where commodious barracks have been erected.

Circle City.—Circle City is the supply point for the rich mining camp of Birch Creek and its tributaries.

Old Fort Yukon.—Is where the mighty river touches the Arctic Circle and turns its course southwest on its way to the sea. Here the midnight sun is visible and the river is ten miles wide. Roses and berries grow in great abundance, and anyone inclined to romance can gather flowers and berries by the midnight sun.

Bettles.—Bettles is on the Foyukuk River, and at the head of navigation. Fifty miles northward is the prosperous mining camp of Coldfoot.

Fairbanks.—A large mining camp 12 miles from the Tanana River; is the supply point for the rich Tanana mining district. Chena is the port of entry, and will probably displace Fairbanks as the mining town of this district. The present outlook for this country is very encouraging at present.

Nome.—Nome is the metropolis of extreme western Alaska and the Seward Peninsula. Placer gold was first discovered here on Anvil Creek in 1898, and during the summer of 1899 pay dirt was struck on the beach contiguous to Nome, and for sixteen months along the Bering seacoast thousands worked the auriferous gold-bearing sands. In the spring of 1900 such a stampede was never known. Now Nome has passed her boom days, and is a good, solid, substantial mining center, with interests that radiate to every port of the Seward Peninsula.

Teller City.—Is located on Grantly Harbor, and is the center of a growing placer district.

Cape Prince of Wales.—Is the most westerly point in Alaska, and is in the Cape York mining district, where placer gold and stream tin are found in limited quantities.

Deering.—Is at the mouth of the Inmachuk River, which flows into Kotzebue Sound. It is the most northern town on the Seward Peninsula, and is the supply point of rich placer deposits.

Kilawick.—Supplies the Candle Creek section of the country.

Point Barrow.—Is the most northern point in Alaska, and here is located the most northern post-office in the world. It is a United States Government weather observatory and whaler relief station.

Rampart.—Is quite a mining town and supplies a large country.

Solomon.—Is the southern terminus of the Council City and Solomon River Railroad.

Council City.—Council City is located on the Niukluk, and is the center of a rich mining country. The most productive of its many streams for placer gold is Ophir Creek, which is not equaled in its output of gold by any creek of the Seward Peninsula.

Ketchikan.—The first town reached is the first United States custom station.

Skagway.—Situated at the head of Lynn Canal, is the entrepôt for the Yukon and interior regions of Alaska, and the southern terminus of the Yukon and White Pass Railroad.

Wrangell.—Is a beautiful town, situated on Etolin Bay, about 750 miles from Seattle, on the direct steamship line; has a moderate climate, never reaching above 70° in summer nor going below zero in winter. Main industries are salmon, halibut, and herring fisheries, and the finest forests of this section of Alaska are contiguous. Six miles from Wrangell is the mouth of the Stikine

River, which is navigable 150 miles—50 miles upstream, however, the boundary line between United States and Canada is crossed. The Wrangell mining district is noted for its rich quartz-bearing ores, principally gold and copper. The main land east of Wrangell is rich in silver and lead ores. This district also boasts of no less than five distinct varieties of marble, besides the finest deposits of bituminous coal. Near Wrangell the largest cauliflower grown in Alaska was produced, and it weighed $10\frac{1}{2}$ pounds, and the largest Irish potato, 7 pounds and 3 ounces. Most of the fresh halibut used in the United States are caught in the Wrangell narrows.

ALASKA ORGANIZATIONS, SOCIAL AND FRATERNAL.

Arctic Brotherhood; branches established at various points throughout Alaska and the Yukon territory.

Alaska Academy of Sciences, Nome.

Society of Ethnology, Sitka.

Kegoayah Kogga (Aurora Club), Nome.

Alaska Women's Auxiliaries of Sitka, Skagway, Juneau, Douglas, Treadwell, Wrangell, and Ketchikan.

Yukon Order of Pioneers.

Alaska Club; headquarters, Seattle, Wash.

Alaskan Press.—News, Nome; Nugget, Nome; Gold Digger, Nome; News, Council; Forum, Rampart; Yukon Valley News, Rampart; News, Fairbanks; News, Teller; News, Valdez; Alaskan, Sitka; Alaskan, Skagway; Guide, Skagway; Dispatch, Juneau; Record-Miner, Juneau; Transcript, Juneau; Douglas Island News, Douglas; Sentinel, Wrangell; Mining Journal, Ketchikan.

The United States Government could hardly have done more at the present time for the furtherance of the development of the great, rich district of Alaska, with its untold wealth in minerals and its great possibilities in agriculture, than it has done by securing to the people of Alaska an opportunity to display their resources and products to the inspection of the millions who have visited the Louisiana Purchase Exposition. The exhibits shown by them have excited the utmost wonder and surprise in the minds of the many witnessing them, who had been in ignorance of the resources of their country, and thousands have been led to investigate and to seek further information. The effect of the Alaska exhibit will undoubtedly be far-reaching and permanent, nor can it be doubted that Congress will supplement this great contribution to Alaska's welfare in the near future by legislation which shall secure the one great need of Alaska, inland transportation.

As this catalogue is going to press the commission is advised that 38 medals have been awarded as prizes for exhibits in the Alaska building by the juries of awards for the Louisiana Purchase Exposition.

This is very gratifying to the commission and will be a cause of pride to all Alaskans. It further confirms all that has been herein affirmed as to the satisfactory character of the Alaska exhibit. It is hoped that the list of those to whom awards have been given may be received in time to be included herein.

EXHIBITS IN THE ALASKA BUILDING.

MAPS OF ALASKA.

Large relief map of Alaska, modeled from surveys by the United States Geological Survey. Sent by the Department of the Interior, Commission for the Alaskan Exhibit, Washington, D. C.

Maps of Alaska. Geological Survey, from the Department of the Interior. Progress map of Alaska by division of Alaskan mineral resources. Areas of geologic and topographic surveys, 1898, 1903. Map of Douglas Island (small), showing Gastineau Channel, Stephens Passage. Two large maps of Alaska.

Map of mineral display showing distribution of mineral resources as far as known, by division of Alaskan mineral

resources, showing placer-gold districts, area of metamorphic rocks, locally mineralized, and including known lode districts; area of coal-bearing rocks, gold placer, gold and silver lodes, copper, tin placers, tin lodes, coal, petroleum.

Map showing explorations in Alaska, 1902, Mount McKinley region.

Large topographic map of Chitina River and Copper River region, Alaska, 1900. Gold placer, copper prospects.

Map of Seward Peninsula, Alaska, showing productions gold placer by division of Alaskan mineral resources; United States Geological Survey.

TREADWELL MINE EXHIBIT.

One of the most impressive and significant exhibits consists of a gilded cube about 3 feet in diameter, representing the size of a block of gold worth \$7,200,000, which is the amount paid by the United States to Russia for Alaska, and beside it, inclosed in a brass railing, a gilded pyramid of blocks representing the amount of gold taken each year since 1882 from the Treadwell mine in Alaska, aggregating \$21,800,000, a sum which is three times the amount paid for Alaska, taken from one mine.

CASE OF GOLD NUGGETS, GRAPHITE, AMBERGRIS, JADE, AND GARNETS.

A number of rampart gold nuggets. Loaned by J. W. Boothby, Doric Creek, Alaska.

Free gold quartz samples, value \$50,000 per ton, from Berners Bay, Alaska.

A number of gold nuggets and a bracelet made of gold nuggets from Anvil Creek. Loaned by Mrs. O. E. King, of Nome, Alaska. Also gold-bearing ruby sand, from Nome, Alaska.

A gold nugget, weight 2 ounces, from Slate Creek, Alaska. Loaned by S. A. Hemple, of Valdez, Alaska.

A number of gold nuggets and dust from Nome, Alaska. Loaned by Mrs. Mary E. Hart. Also some ruby gold-bearing sand from Nome, Alaska; sample of ambergris from Cape Prince of Wales, Alaska, value \$19 per ounce, and jade, a lucky stone found in the northern part of Alaska and much valued by the Indians there.

Graphite (black lead) sample. Alaska garnets shown in the natural rock.

ORES.

The ore exhibit, especially of gold and copper ores, is very large, filling a glass case 75 feet long and 5 feet high. These ores were collected by an expert mineralogist employed by the Alaskan Commission, and include specimens from nearly all the mines in Alaska. Following is a list of the mines from which the ores were collected:

Alaska Treadwell Gold Mining Company, product, \$22,000,000.

Juallin Mines Company.

Alaska Treasure Consolidated Mines Company.

Ebner Gold Mining Company.

Sea Level Mining Company.

Treasure Mine.

Golden Fleece Mining Company.

Jumbo mine, Alaska Industrial Company.

Olympic Mining Company, Alaska.

New York Smelting and Refining Company.

Keystone mines.

Gold Standard Group, Kasaan Bay.

Westcot's Niblock.

Friaco mine.

Beauty mine.

Golden Fleece, Dolomi, Alaska.

Hornblende.

Marble, G. E. Rodman, Ketchikan.

Coal.

Garnet capping to copper.

Copper ore, G. E. Rodman.

Hornblende, G. E. Rodman.

Copper ore, G. E. Rodman, Ketchikan.

Jumbo mine, Alaska Industrial Company, Sulzer, Prince of Wales Island.

Alaska Industrial Company.

Copper ore, Sulzer, Prince of Wales Island.

Hattie Camp, Olympic Mining Company.

Lime, Coronation Island, G. E. Rodman, Ketchikan.

Galena ore, G. E. Rodman, Ketchikan.

Lead ore, Coronation Island.

Windham Bay, G. E. Rodman, Ketchikan.

Copper, G. E. Rodman, Prince of Wales Island.

Noble Grand, Prince of Wales Island, G. E. Rodman.

James Lathrop's private exhibit, Ketchikan:

Mamie, New York Smelting and Refining Company, Hadley, Alaska.

Mount Andrew, New York Smelting and Refining Company, Hadley, Alaska.

Poor Man, Kasaan Bay.

Kyakan Company, Kasaan Bay.

Commander, Kasaan Bay.

Nugget, Twelve-Mile Arm.

Chilcoot, Carter Bay.

Keystone, Thoru Arm.

White Horse.

Sea Lever, Thorn Arm.

Garnets, Wrangell.

Gold Standard, Helm Bay.

Morrison, Prince of Wales Island.

Copper Mountain.

Mammoth, Georges Inlet.

Red, Twelve-Mile Arm, Kasaan.

Equator, Chamley Sound.

Eunie River.

Mona Ext., Mamie.

Copper.

Capping of Mamie, New York Smelting and Refining Company.

Golden Fleece, New York Smelting and Refining Company.

Golden Fleece, Dolomi, Alaska:

Large piece of copper.

Boranite.

Three pieces of Funter Bay Clay.

Eagle River Mining Company, sample.

Sitka.

Copper from Kasaan Bay Mining Company, Prince of Wales Island, Alaska.

Specimens of ore from the sea level property of Ketchikan, the Treasure mine of Karta Bay, and Captain Martin of Berners Bay.

Private exhibit of Joseph Lathrop, showing samples of ore taken from the several mines and prospects in and about Ketchikan, Alaska.

Elephants Nose, Wrangell.

Lost Boat, Gravena Island.

Copper Giant, Gravena Island.

Cleveland Pen, McEwen.

Mamie Ore, Hadley.

Valparaiso, Dolomie, Prince of Wales.

Bay View, Seal Bay.

Daisy, Gravena Island.

Jumbo, Sulzer, Prince of Wales.

Sun Rise, Gravena Island.

Blue Bird, North Arm, Moria Sound.

War Eagle, Ketchikan, Alaska.

Eureka, North Arm, Ketchikan.

Corwoll Inlet Claim, Ketchikan.

Copper from Grant Group, Gravena Island, Ketchikan.

Daizil, Dall Head, Ketchikan.

Ore from Chalnurdley Sound, Prince of Wales Island.

Lead.

Golden Fleece, Thorn Arm.

Mount Mine, McLeans Arm.

Cap Rock, Tolsti.

San Francisco, Dall Head, Gravena Island.

Cracker Jack.

Gold Stream, Gravena Island.

Kasaan Bay Mining Company.

Ready Bullion Copper Company.

Pacific Coast Gypsum Manufacturing Company.

Oceanic Mining Company.

Thomas Hammore, oil, coal, and fossils.

Eagle River Mining Company.

Perseverance Mining Company, Concoltd.

Bullion Group of Mines.

Luskmonda Group.

Alaska Snettesham Gold Mining Company.

Admiralty Coal Company.

Alaska Copper Company.

Boston Group Mines.

Salmon and Mining Company.

Red Wing Group.

Sheep Creek Gold Mining Company.

Private exhibit of Joseph Lathrop, etc.—Continued.

Bessie Gold Mining Company.

Hallum, Juneau.

Wagner, Salmon Creek.

Turner, Sitka.

First mine, Sitka.

Eagle River.

Marble, Prince of Wales.

Pearce, Funter Bay.

Frank Flemmin, Berners Bay.

Hunter Flemmin, Berners Bay.

Eugenia Group, Haines.

Sea Sevl, Ketchikan.

Gold Standard, Ketchikan.

Commoner, Grindall, Alaska.

Mamie Mine, Hadley.

Oceanic Mining Company.

Ready Bullion Copper Company.

Situated on Lynx Creek, Cook Inlet, Alaska; discovered, 1899, by Nathan P. White.

Northern Hotel cabinet. Alaska Copper Company.

Red Wing Group. Sample from Red Wing Group, Franklin Mining Company, Copper City.

Juallin Mines Company, Berners Bay, Alaska.

Alaska Treasure Consolidated Mines Company (Limited), situated on Douglas Island, Alaska.

Olympic Mining Company.

Laskawonda Group: "Ida," "Teekalut," and "Gold Bluff."

Ebner Mining Company, Juneau, Alaska.

Bullion group of mines.

Boston group of mines.

Eagle River Mining Company.

Perseverance Mining Company.

Samples of placer tin sent by Emma R. Steiner:

The big nodule.

Two assortments of small nodules.

Pure tin stand.

Two small tin bars.

A canvas bag of fine tin.

Tin cassiterite.

Tin ore from Buck Creek and Lost River, sent by Alaskan Academy of Sciences:

1. Alaska tin ore from York, Alaska, Tin Corporation's property, on Right Fork of Buck Creek.

2. Alaska tin ore from Buck Creek property.

3. Tin ore from veins located on Lost River, near Cape York, Alaska.

Minerals loaned by Reynolds-Alaska Development Company, Valdez, Alaska: Specimens of gold and copper ores, from Prince William Sound and Kenai Peninsula, etc.

MARBLE EXHIBIT.

Mantel pillars and slab from the Alaska
Marble Company.

Marble from Fort Wrangell, showing
compression test, 6 tons to square
inch. Donated by E. Miller.

CANNED SALMON, SALMON EGGS, AND CURIOS LOANED BY THE ALASKA PACKERS'
ASSOCIATION.

[Valued at \$500.]

Canned salmon.
Fish.
Fish eggs.
Tiny fish.
Indian hat.
Swordfish.
Skin canoe, 8 figures.
Package bows and arrows, No. 9.
Package arrows, No. 4.
Package spears, No. 259.
Harpoon, No. 9.
Skin parkey.
Large fishhook.
2 bundles of line.
6 small hooks and sinkers.
Hair-seal bag, No. 228.
Bag and knife, No. 78.
Skin bag.
Bag, No. 227.
Pair hair-seal slippers, No. 55.
Bone spoon.
Knife, No. 94.

Indian comb, No. 118.
Virtue charm, No. 141.
Virtue charm, No. 147.
Comb, No. 150.
Pair wooden spoons.
Birch basket.
Basket, No. 245.
Basket.
Covered bottle, No. 62.
Basket.
Nest birch baskets (11).
Case fine baskets.
2 mats.
2 tusks (20 pounds).
2 pos whalebone (2 pounds).
1 reindeer skin.
1 hair seal, cased.
1 hair seal, open.
4 hair seals.
1 boat.
1 hair-seal suit and dummy.
1 gut line.

ALASKA FURS.

List of Alaska furs exhibited by the Simmons Fur Company.

Polar bear rugs—

No. 26, valued at \$1,000.
No. 21, valued at \$400.
No. 2, valued at \$250.
No. 6, valued at \$200.
No. 8, valued at \$85.
No. 19, valued at \$175.
No. 20, valued at \$175.
No. 22, valued at \$200.
No. 24, valued at \$475.
No. 129, valued at \$175.
No. 30, valued at \$175.
No. 43, valued at \$175.
No. 44, valued at \$140.

Brown bear rugs—

No. 48, valued at \$250.
No. 37, valued at \$225.
No. 46, valued at \$75.
No. 36, valued at \$80.
No. 65, valued at \$350.
No. 38, valued at \$200.
No. 50, valued at \$140.
No. 18, valued at \$140.
No. 64, valued at \$200.
No. 35, valued at \$175.
No. 63, valued at \$200.
No. 39, valued at \$140.
No. 34, valued at \$125.
No. 46, valued at \$85.
No. 40, valued at \$150.
No. 41, valued at \$85.

4 black bear rugs, valued at \$17.50
each.

1 black wolf rug, valued at \$75.
1 Polar bear raw skin, valued at \$75.
1 brown bear skin, raw, valued at \$50.
1 half brown and black, valued at \$25.
1 fur seal, valued at \$12.
2 hair seals, valued at \$1.50 each.
4 mountain sheep and horns, valued at
\$25 each.
4 white foxes, valued at \$12.50 each.
2 red foxes, valued at \$10 each.
2 cross foxes, valued at \$25 each.
5 blue foxes, valued at \$20 each.
1 silver gray fox, valued at \$350.
1 badger, valued at \$5.
1 beaver, valued at \$9.
1 otter, valued at \$11.
4 mink, valued at \$4.50 each.
32 sables, valued at \$25 each.
2 black skins, raw, valued at \$20 each.
Mrs. Mary E. Hart's collection of furs,
Nome, Alaska:
Large red fox.
White fox.
Alaska lynx.
White ermine.
Summer ermine.

Loaned by J. H. Holland, Oakville,
Wash.:

Sealskin coat and vest made by
the Sitka Indians. Seven skins
of 2-year-old seals in the two
garments.

Loaned by Governor John G. Brady,
Sitka, Alaska:

White polar bear rug, valued at
\$1,000.

Musk ox rug.

A large coat made of squirrel skins,
from the Romig collection, purchased
by the Commission for the Alaska
exhibit.

COAL, OILS, AND GUANO.

Herring oil and guano from the Alaska
Oil and Guano Company, Killisnoo,
Admiralty Island, Carl Spuhn, man-
ager.

Crude and refined, from Kayak, Alaska,
from the flowing well owned by the
company, locally known as "The
English company."

Samples of seepage oil, from Cold
Bay, Alaska.

Samples of paraffin gum, as found
in the Open, Cold Bay, Alaska.

Loaned by J. H. Costello, Cook
Inlet.

Crude petroleum from Cook Inlet.

Refined petroleum from Kayak.

V. M. & P. naphtha, gravity, 60½°
Baumé.

Redistilled light naphtha, gravity,
75° Baumé.

Crude naphtha, gravity, 64.9°
Baumé.

Crude and refined, from Kayak, Alaska,
etc.—Continued.

Gasoline from Alaska, crude, 66-
63½ gravity; average gravity,
64.8.

Crude scale wax from Alaska,
melting point, 123½.

Red oil from Alaska, crude; grav-
ity, 23.5; flash, 335.

Light paraffin oil from Alaska,
crude; gravity, 26.7; flash, 330.

Illuminating oil, fire test, 110° F.,
gravity, 42.1° Baumé.

Coal loaned by Col. Samuel M.
Lovell, of Kayak, Alaska.

Semianthracite coal, Kayak,
Alaska.

Bituminous coal from Admiralty
Island, Alaska.

Semibituminous coal, Cook Island.

Semicannel coal from Cook Inlet.

PAINTINGS AND PHOTOGRAPHS OF ALASKA SCENERY, ETC.

Life-size portrait of Peter the Great,
loaned by Mr. L. Nabokoff. Found
in Alaska at the time of the pur-
chase by the United States. A very
rare picture.

Framed pictures loaned by the White
Pass and Yukon Route "Totem Pole
Route," Pacific Coast Steamship
Company, Standard Gauge R. R.,
Council City and Solomon River
R. R. Co.

Paintings, by Theo. J. Richardson,
"Netley Corners," Minneapolis,
Minn.:

Scenes of Alaska.

Native Interior.

Old Russian Trading Post.

Left by the Tide.

Switzerland in Alaska.

Chilkat Range from Skagway.

Old Sitka.

Totems at Fort Wrangell.

Deserted Village, Kasaan.

Taku Glacier.

Muir Glacier.

St. Elias Alps.

Beach at Sitka.

Huge Berg, Taku.

Warm Afternoon at Sitka.

Way to Indian River.

End Section of Muir.

Russian Blockhouse.

Old Russian Market.

Cloudy Morning.

Silver Bay.

Paintings by Theo. J. Richardson,
etc.—Continued.

End of Native Village.

Covered Canoes.

Out in the Mist.

Blue Berg—Channel.

Section Braking.

Beached in the Rain.

Old Sitka.

Silvery Morning.

Muir from Mount Wright.

Icebergs.

Marble Berg.

Golden Glow.

Glacier Bay at 11 p. m.

Baronoff Mountains.

Windom Glacier.

Snap Shots.

Phantom Bergs.

Spokane and Ice Front.

Bark Hut.

Drying Skins.

End of Taku.

Pink Twilight.

After Sunset.

Evening.

Near Killisnoo.

Taku Ice.

Scenes, flowers, berries, etc., of Alaska,
painted in water colors. List of
paintings by Miss Leslie Jackson, of
Washington, D. C.:

Cyclamen.

Monkey-Flower.

Harebell.

Scenes, flowers, berries, etc., of Alaska,
etc.—Continued.

Fritillaria.

White Flowering Raspberry.

Old Basket Weaver and Husband.

An Expert Weaver.

Wood Carver.

Basket Weaver, Sitka.

High Caste Woman.

Native Girl Beading Moccasins.

Native Drying Salmon.

Channel, S. E. Alaska.

Wrangell Narrows.

Native Houses, Kasaan.

Kasaan.

Governor's House.

Sitka.

Greek Church, Sitka.

Native Village, Sitka.

Paintings by Mrs. Rowena Nichols
Leiness—Alaska scenery

Gastineau Channel by Moonlight,
38 by 48 (Mount Jumbo, Tread-
well mine).

The Muir Glacier, 36 by 56.

The Auk Village, 38 by 48 (Mount
Juneau and north end Douglas
Island).

A Scene in Wrangell Narrows.

Scene in Kell Bay (cannery and
Foliage Mountain).

The Artist on the Headwater of
the Yukon (tent, self, dog, and
pupil, James When).

Devils Reef and a Wreck.

Views and drawings loaned by wo-
men's auxiliary, Ketchikan, Alaska:

Oil painting by Mrs. Delzelle,
marked No. 1.

Card water colors, by Mrs. Swine-
ford, marked No. 2.

Card water color, by Mrs. Swine-
ford, marked No. 3.

Photograph, by J. Sternberg,
marked No. 4.

Photograph, by J. Sternberg,
marked No. 5.

Photographs loaned by the women's
auxiliary of Skagway:

Keelar, money king of Alaska.

Episcopalian Church.

Interior of church.

Electric-light plant.

Railroad shops.

Reservoir.

Skagway.

Mount Dewey.

Dewey Falls.

Paintings loaned by the women's aux-
iliary of Juneau:

Mount Edgumbe (water color),
by Mrs. Kate Terrell.

Greek Church (water color), by
Mrs. Kate Terrell.

Totems at Wrangell (water color),
by Mrs. Kate Terrell.

Paintings loaned by the women's aux-
iliary of Juneau—Continued.

Shady Bend (water color), by
Mrs. J. P. Jorgensen.

Dick Harris (oil), by C. Krogh.

Joe Juneau (oil), by C. Krogh.

Yess Bay (water color), by C.
Krogh.

A Spruce-tree Bowknot.

Sea Eggs.

Twelve carvings in bone, horn, and
wood, by Kush Hat, an Indian of the
Crow tribe. Loaned by the women's
auxiliary of Juneau.

Photographs from women's auxiliary
of Skagway, Alaska:

Garden dahlias.

Flower garden.

Tea roses.

Sideboard, interior.

Skagway River, looking south.

Falls, near Skagway.

Flowers.

Home and garden.

Skagway River.

Dining room.

Parlor.

Hedge of sweet pines.

Residence.

Interior of residence.

Large photograph, Miss Alaska

Young in Eskimo dress. Loaned
by Mrs. S. H. Young, Skagway,
Alaska.

Photograph of A. B. Hall. Loaned
by Dr. L. S. Keller, Skagway,
Alaska.

Oil paintings, loaned by Mrs. E.
Rund: Alaskan Violets, Alaskan
Marsh Marigolds, Alaskan Scene
near Haines, Alaska.

Oil paintings, loaned by Mrs. Hall
Young, Skagway: Indian River
at Sitka, Norris Glacier.

Picture No. 1, Hislop Marie Bar-
ley, born October 18, 1899.
Loaned by Mrs. A. W. Reed,
Skagway, Alaska.

Picture, grandchildren of Mr. and
Mrs. Broemser.

Two pictures of Baby Rudd, six
months old. Loaned by Mrs.
Elias Runal.

Henry Dedman. Loaned by Mrs.
Dedman, Skagway, Alaska.

Lester Moyer. Loaned by Mrs.
Frank Moyer, Skagway, Alaska.

Home of Mrs. Webster.

Tony Deterio.

Paintings loaned by the women's aux-
iliary of Skagway:

Two pictures from Mr. P. Kern:
Jewelry store, baskets.

Picture card of views.

Card of views. Edwin Russell
Stivers, Skagway, Alaska.

Paintings loaned by the women's auxiliary of Skagway—Continued.

Oil painting at Sitka.

Large oil painting, Norris Glacier.

Large photograph, Doctor Tommey, in Eskimo dress. Sent by Martha B. Keller, Skagway.

Photographs of Sitka, Alaska:

Totem poles at Indian River, Sitka, Alaska.

Fourth of July at Sitka, Alaska.

Interior of W. R. Mills's home at Sitka, Alaska.

Sitka, Governor Brady's home and children.

Miss Patton's exhibit of children's agricultural efforts.

Indian River Point at Sitka.

Interior industrial training work shop.

Interior industrial training shoe shop.

Interior Industrial Training School.

Members of the Alaska Band at Sitka.

Episcopal Church at Sitka.

Interior of Greek Church, Sitka, and exterior Greek Church.

Interior B. Hurst's store, Sitka.

George Barrons's home, Sitka.

Vista, Indian River, Sitka.

Walk, Indian River, Sitka.

Raft of logs, Sitka.

Russian Orphanage, Sitka.

Photographs of Sitka, Alaska—Cont'd.

Sleighing party, Sitka.

Native village, Sitka.

The Common—marine barracks, officers' quarters, Sitka.

Tay-he-vouch, Sitka.

Russian blockhouse on Fort Sitka.

Evening at Sitka.

Night at Sitka.

Raft of wood, Sitka.

Sitka from Russian cemetery.

Fishing at Sitka.

Salmon at Sitka.

Dried herring eggs.

The main street of Sitka in winter.

Paintings by Mrs. Kate Terrell, Juneau, Alaska:

Mount Edgecumbe (water color).

Greek Church at Sitka, Alaska (water color).

Totem Poles at Wrangell (water color).

View of Juneau (water color).

View of Sitka Harbor (water color).

Paintings by Camilla Rund, Skagway, Alaska:

Alaska cowslips.

Alaska wild violets and old Indian baskets.

Rainbow Mountain, view from Haines, clearing for Fort Seward in foreground.

TRANSPARENCIES.

Descriptive title list of subjects from which transparencies have been made for use in the Alaska Building.

Descriptive title list of subjects from which transparencies have been made for use in the Alaska Building.

In colors:

Tonka salmon cannery. One of the principal salmon canneries of the North, located at north entrance of Wrangell Narrows.

The storm king in Alaska.

Pack-train transportation. A present-day popular method of transportation; awaiting the advent of proper railway facilities. This scene shows the pack train bound for the rich Copper River district.

Hawkins Point on the White Pass and Yukon Railway, the popular route into the rich Klondike. This is the most expensively constructed railway of its length in the world.

The town of Valdez. The entrepôt of the Copper River district and proposed southern terminus of a railroad 500 miles long to the Yukon River.

In colors—Continued.

Summer trail to the White Pass.

On Nicolli Creek. Miner's cabin on Nicolli Creek below the Nicolli Copper Claim in the Copper River district.

Sitka Harbor.

Camp comforts. An Alaskan road house, on the Valdez-Yukon military trail.

Down the Yukon. The steamer "Louise" towing barges down the second longest river in the world.

Sunset at Nome.

The great Treadwell mine. This is one of the greatest gold mines in the world, and is located on Douglas Island, opposite the city of Juneau.

In black and white:

Pioneer's home and garden. This is the home of a contented German pioneer and his wife in Valdez—Dr. A. von Gunther, who started the first telephone exchange in Valdez in 1901.

In black and white—Continued.

On Elliott Creek. A rich copper creek in the Copper River district.

Carrying United States mail in Alaska. A scene on the United States mail trail between Valdez and the Yukon.

Along the Keystone Canyon. This shows a rocky pass alongside the canyon leading into the Copper River country.

Tonsina Crossing. This shows the bridge across the Tonsina River, built by the United States Government on the trail to the Yukon.

Interior Alaska vegetable garden. The garden in which was raised the finest turnips, beets, onions, cabbages, peas, and vegetables of all kinds; located about 100 miles from the Valdez coast.

A native igloo. A typical winter habitation.

Circle City. This shows the news of President McKinley's death reaching Circle City twenty-four days after it had occurred, and Seattle newspapers selling at \$2 per copy. Since this picture was taken this point has been connected by telegraph with the outside world.

Star City post-office, on the Yukon. Ptarmigan and duck. The result of two hours' shoot near Nome by two men (with a dog).

Fort Liscom. This is a military post on Valdez Bay.

Fire department at Circle City.

Taku Glacier. This is located on Taku Inlet near Juneau.

At the Bonanza copper mines.

In black and white—Continued.

This is one of the richest copper strikes in Alaska, and is located about 250 miles inland from Valdez.

Sunrise at Nome.

Miles Canyon. This is one of the upper stretches of the Yukon River, and was traversed by the thousands on their stampede to the Klondike in 1896 and 1897. Here was lost hundreds of thousands of dollars' worth of merchandise through the inexperience of those trying to navigate these swift waters.

Sluicing on Anvil Creek, Nome. This is one of the richest gold creeks in Alaska, and has made millionaires of many poor prospectors.

Crossing Copper River. This is on the route to the rich copper claims of the Copper River district.

Three little Eskimos. This was made at St. Michaels, near the mouth of the Yukon.

Native industry. This shows some Point Barrow Eskimos making shoes from reindeer hide and cribbage board from walrus tusks.

Camp fire yarns. This is a typical prospectors' evening camp in Alaska.

Sunset on the Yukon. This shows a steamer coming up this mighty river to Dawson, the capital of the Klondike district.

Swimming the Kotsina. This is one of the branches of the Copper River.

Nome City, July 4, 1900.

ALASKA VIEWS FOR STEREOPTICON PICTURES AND LECTURES.

Sitka collection, furnished by the Ladies' Auxiliary, of Sitka, Alaska:

Street scene.

Interior of Greek Church.

Madonna in Greek Church.

Governor Brady's home.

Indian River walk.

Old Russian blockhouse.

Vegetable harvest.

Home of Alaska's pioneer miner.

Herring and roe.

Natives starting for potlatch.

Sitka picnic party.

Interior of home.

Naval station and revenue cutter.

Grain—oats in shock.

Presbyterian mission buildings.

Mission industrial group.

Mission Industrial School group.

Mission military company.

Bird's-eye view of Sitka.

Salmon, weight 53 pounds.

Sitka collection, etc.—Continued.

Home in Sitka.

Government buildings.

Sawmill.

Raft of logs.

Summer scene.

Presbyterian manse.

Raspberries.

Street scene.

Clover.

Halibut.

Sheldon Jackson's museum.

Episcopal Church.

Indian River walk.

Canoeing party.

Sitka panorama.

Juneau collection, furnished by the ladies' auxiliary of Juneau, Alaska:

Native school, Juneau.

Steam launch in harbor.

Residence, Juneau.

Interior view of home.

Juneau collection, etc.—Continued.

The Davis home.
 Interior view.
 Prize bull, Casey's dairy farm.
 Juneau residence.
 Behrend's department store.
 Grocery store.
 Tailor shop.
 Franklin Hotel, Juneau.
 Occidental Hotel.
 Interior Occidental Hotel.
 Kauffman's department store.
 Cloak store (Kauffman's).
 Millinery store (Kauffman's).
 Jewelry store (Valentine's).
 Hardware store (Jeorgenson's).
 Alaska Steam Laundry.
 Interior steam laundry.
 Jergenson's sawmill.
 Sea gulls.
 Street scene, Juneau.
 Maloney residence.
 Maloney residence, interior.
 American Beauty rose.
 Greenhouse, Juneau.
 Vegetable gardens.
 Casey's dairy farm.
 Juneau Band.
 Juneau Odd Fellows.
 Juneau Order of Elks.
 Picnic party.
 Bird's-eye view of Juneau.
 Old Russian gun.
 Court-house, Juneau.
 Curio store, Douglas.
 Residence in Juneau.
 Residence interior.
 First snowfall, Juneau.
 Eicherley's residence.
 Curing a cold.

Dunann collection :

Metlakahtla.
 School, Metlakahtla.
 Interior church, Metlakahtla.
 Ketchikan.
 Ketchikan totem.
 Street scene, Ketchikan.
 Indian grave.
 Indian house.
 Fort Wrangell.
 Modern dwelling and totems.
 Taku Glacier.
 Taku ice cliffs.
 Treadwell.
 Glory Hole, Treadwell.
 Douglas.
 Juneau.
 Wharf at Sitka.
 Greek Church at Sitka.
 Greek Church, interior.
 Sitka totems.
 Indian River road.
 Glacier Bay.
 Overhanging rock, W. P. and Y.
 R. R.
 Rev. William Duncan.
 Greek Madonna.
 Kasaan totems.

Dunann collection—Continued.

Dead glacier.
 Old barracks, Fort Wrangell.
 Pedersen collection :
 Map of Alaska.
 Comparative map.
 Southeastern Alaska.
 Boundary lines.
 Steamer City of Seattle.
 Needle Rock.
 Fort Wrangell.
 Main street, Fort Wrangell.
 Wrangell burying grounds.
 Group of natives.
 Chief Jake's house.
 Interior Chief Jake's house.
 Wrangell totems.
 Indian graves.
 Indian totem.
 Lost City.
 Lorrington cannery.
 Peril Straits.
 Indian ranch.
 Long Jim.
 Indian canoe.
 Juneau.
 Killisnoo.
 Basket makers.
 Sitka.
 Indiantown, Sitka.
 Greek Church, Sitka.
 Greek Church, interior.
 Indian River road.
 Big trees.
 Indian River bridge.
 Muir Glacier.
 Davidson Glacier.
 Floating ice.
 Chilkoot.
 Indian packers.
 Steamer Willamette.
 Skagway.
 Skagway Harbor.
 Ladies fording river.
 Blacksmith shop.
 Loading oxen.
 Cache.
 Dead Horse trail.
 Wagon in water.
 Dyea.
 Dyea Harbor.
 Unloading freight at Dyea.
 Congested freight on Dyea beach.
 Canoes, Dyea River.
 Bridge, Dyea River.
 Poling boat.
 Indian ferry.
 Indian guide.
 Headwaters, Dyea River.
 Chilkoot summit.
 Dog team.
 Goat team.
 Miners' meeting.
 Dinner on trail.
 Chilkoot Canyon.
 Crossing the summit.
 Breaking camp.
 Precipice.

Pedersen collection—Continued.

Canyon.
 Deep Lake.
 Lake Linderman.
 Boat building.
 Portage to Bennett.
 Bennett Lake.
 Miles Canyon.
 Wayside grave.
 Panning for gold.
 Dawson.
 Bonanza Creek.
 Ice jam.
 Fortymile City.
 Circle City.
 Hunter and skin.
 Game.
 Street scene, Cape Nome.
 Seals, St. Paul Island.
 Eskimo natives.
 Eskimo women and papoose.
 Medicine man.
 Greed for gold.
 Uncle Sam on boundary question.
 Governor Brady.
 Homeward bound.

Reid collection :

Moonlight on Lynn Canal.
 Steamer on the Yukon.
 Eskimos at St. Michaels.
 Residence at Treadwell.
 Interior residence at Treadwell.
 Y. M. C. A., Treadwell.
 Denver Glacier.
 Scene on W. P. and Y. R. R.
 Russian mission.
 King Island grave.
 King Island native house.
 Indian huts near Juneau.
 Scene near Wrangell.
 Siwash women.
 Scene on Fortymile River.
 "S" Glacier.
 Boat building at Bennett.
 Fishing camp on the Yukon.
 Court-house at Skagway.
 Dawson City.
 Holy Cross Mission.
 Juneau.
 Salmon cannery.
 Snake River.
 Group of Eskimos.
 Eskimo graves.
 Indian grave on Yukon.
 Miners' meeting, Dawson.
 Steamer and barge on lower Yukon.
 Potlatch natives.
 Alaska native guards.
 Steamer Argo on Yukon.
 Loading wood on Yukon.
 Pasture scene, Copper River.
 Winter street scene, Dawson.
 Pack-train road house.
 Copper River scene.
 Prospectors' camp.
 Eskimo scene.
 Arctic scene.

Reid collection—Continued.

Alaska building.
 Natives at Juneau.
 Gold shipment.
 Eskimo houses.
 Skagway trail.
 Klukwan natives.
 Indian burying ground, St. Michael.
 Nome Beach, mining.
 Nome Beach, sunset.
 Nome Beach, storm.
 Nome Beach after storm.
 Midnight sun in the Arctic.
 Herd of reindeer.
 Reindeer and Eskimo.
 King Island.
 Walrus off coast.
 Dutch Harbor.
 Seward City.
 Landing first locomotive.
 Alaska Central Railroad.
 Alaska Central trestle.
 Cache in woods.
 Pioneer home.
 Valdez.
 Pack train on Copper River.
 Calico Mountain.
 Circle.
 Circle fire department.
 Street scene, Circle.
 Midnight sun on Yukon.
 Sunset on Yukon.
 Rampart.
 Bottle-front saloon.
 Mail team at Kaltag.
 St. Michael.
 Kodiak.
 Baptist orphanage, Wood Island.
 King salmon.
 Eskimo house, St. Michael.
 Eskimo children.
 Winter street scene, Nome.
 Nome nugget.
 Anvil Creek.
 Street scene, Skagway.
 Y. M. C. A. Camera Club.
 Inspiration Point.
 Summit White Pass.
 Locomotive, W. P. and Y. R. R.
 Miles Canyon.
 White Horse Rapids.
 Dawson.
 Winter street scene, Dawson.
 Winter mining, showing windlass.
 Sluicing.
 View down Yukon River.
 Eagle.
 Women in the mines.
 Goat team in the Yukon.
 A huskie dog.
 Bennett.
 Harbor at Skagway.
 Kasswan Band.
 The deserted city.
 The witch rock.
 Girl wanted.
 Totem figures.

Reid collection—Continued.

Wrangell cannery.
Taku Glacier.
Glory Hole.
Human skulls.
Wood scene near Skagway.
Denver Glacier.
Reid monument, Skagway.
An Alaskan funeral.
City of dead, King Island.
Native women, King Island.
Native burial, King Island.
Kanna.
An Alaskan costume.

Reid collection—Continued.

Miles Canyon.
Yukon flats.
Biographic views:
W. P. and Y. R. R. "Flyer" approaching Skagway.
Two miles over the W. P. and Y. R. R.
A panorama view of Miles Canyon.
Through Miles Canyon on a cattle scow.
Shooting White Horse Rapids.
Steamer Yukoner leaving Dawson.

SCHOOL EXHIBITS.

Public and high school exhibit of Juneau, very attractively mounted:

Seventh grade literature.
Sixth grade literature.
Seventh grade grammar.
Sixth grade grammar.
Fifth grade grammar.
Fourth grade language.
Third grade language.
Second grade language.
First grade language.
First grade writing.
Second grade writing.
Third grade geography.
Fourth grade science.
Fifth grade geography.
Sixth grade geography.
Seventh grade geography.
Sixth grade science.
Seventh grade science.
Eighth grade science.
Eighth grade physical geography.
High school science.
First grade number work.
Second grade number work.
Third grade number work.
Fourth grade arithmetic.
Fifth grade arithmetic.
High school Latin.
School song.
Third grade history.
Seventh grade history.
Eighth grade history.
High school history.
First grade water colors.
Second grade water colors.
Third grade water colors.
Fourth grade water colors.
Fourth grade drawing.
Fifth grade drawing.
Seventh grade drawing.
Sixth and seventh drawing.
Drawings.
High school algebra.
High school geometry.
High school elementary geometry.
Seventh grade arithmetic.
Sixth grade arithmetic.

Presbyterian Mission Industrial Training School of Sitka, Alaska:

1 chiffonier.
2 packages school manuscripts.
2 photographs.

Presbyterian Mission Industrial Training School of Sitka, Alaska—Cont'd.

2 pairs of shoes.
4 native carving knives.
1 net needle.
3 little canoes.
7 small carved paddles.
3 pieces of inlaid wood.
2 joints—woodwork.
4 bows and arrows (in separate package).
1 salad fork of alder wood.
Shoes made by native boy.
Shoes patched by native boy.
Star fish (not numbered).
Photographs (not numbered).
List from the training school at Sitka:
Carpenters' joinings.
Carved paddles.
Long boat made by boys of the industrial school.
Bureau, made by boys of the industrial school.
2 pairs shoes, made by boys of the industrial school.
2 silk flags.
Child's dress.
Underwaist.
Fancy work bag.
Native dancing shirt (model).
Pair of mocassins.
Case for handkerchiefs.
Wall pocket.
2 balls.
Pair brown stockings (small size).
Pair knitted gloves (small size).
Stocking, showing the darning.
2 dolls (one of wood).
2 little covered baskets.
Basket, showing the work.
Cover, showing the work.
3 bead bottles.
Little red flannel skirt (model).
Little white apron (model).
2 weaving cards.
Card with stockings and mittens (for doll).
Woven bead chain.
Overhand patch.
Hemmed patch.
Darning on cashmere.
Darning taken from an old garment.

Table and case of Eskimo school work, Cape Prince of Wales, Dr. Sheldon Jackson school work, mixed Government and mission work:

Photograph, Dr. Sheldon Jackson, president Indian school, Sitka, 1888.

Photographs of Eskimo children, schools, churches, residences.

Photographs of Point Barrow, Presbyterian mission house.

Photographs of teachers in Alaska.

Photographs of Juneau public school.

Photographs of Juneau Presbyterian Mission.

Photographs of Moravian Mission.

Photographs of Episcopal Mission.

Photographs of Baptist Mission.

Photographs of Holy Cross Mission.

Photographs of Swedish Evangelical Union Mission.

School work, Sitka, Alaska—

Drawing.

Language.

Spelling.

Arithmetic.

Reading, essays, etc.

Public school, Unga (Aleuts).

Kindergarten work, Sitka, Alaska.

Table and case of Eskimo school work, etc.—Continued.

Free-hand drawing, school No. 1, Sitka, Alaska.

Grammar, seventh and eighth grades, Sitka, Alaska.

Arithmetic, third, fourth, fifth, sixth, seventh, and eighth grades, Sitka, Alaska.

Algebra, first year high school, Sitka, Alaska.

Kodiak, Alaska, U. S. Public School, pen and ink work, drawings.

Photographs, Valdez pictures.

Collection of photographs from the Far North, exhibited by Mrs. Mary E. Hart.

Noted dogs of Alaska.

Dewey Falls and Skagway scenes.

Photographs exhibited by E. F. Wood, Rampart, Alaska.

Photographs of Ketchikan.

Nome public and high school exhibit: 5 large schoolbooks.

Burnt leather covered drawing book.

Large picture of Nome school.

Picture of Mr. Trapagan.

Picture of Miss Mauzy.

Picture of L. L. Sawyer.

Large A. B. picture.

CEREALS AND GRASSES.

The commission has been very fortunate in securing for the Alaska exhibit a very fine collection of samples of grains, raised at the experiment stations in Alaska, consisting of grains in the straw, and thrashed grains, including wheat, rye, barley, and oats. These samples are handsomely displayed, some of the grains and straw being tastefully arranged on the walls, covering a space 10 by 40 feet, and the balance in a pyramid some 10 feet high and 8 feet in diameter. The thrashed grains are displayed in glass jars. The grasses are shown in bales of hay.

These grains and grasses were collected by Prof. C. G. Georgeson, special agent for Alaska, in charge of the experimental stations of Alaska for the United States Department of Agriculture. This display of cereals and grasses is one of the most important, instructive, and surprising to visitors of any display in the Alaska building; for it demonstrates the fact that agriculture is possible in Alaska, and that seekers after the treasures of the mines may always feel sure of subsistence. Without agriculture Alaska would be what it is popularly supposed to be, but with agriculture it becomes one of the most attractive and promising regions for development by the pioneer.

The following are some of the varieties grown:

Oats, common, grown in Rampart, Alaska.

Oats, Zhelanni, Kenai.

Oats, Swedish select, Haines.

Oats, Burts Extra Early, Sitka.

Oats, White Russian, Sitka.

Oats, Sixty Days, Sitka.

Oats, Early Rust Proof, Rampart.

Oats, Swedish Select, Sitka.

Oats, Black Finnish, Sitka.

Barley, Manchuria, Sitka.

Barley, Sisolsk, Sitka.

Barley, Manchuria, Hope.

Barley, Royal, Copper Valley.

Barley, Trooper, six-rowed, Copper Valley.

Barley, Beartown, Kenai.

Rye, Giant French Winter, Sitka.

Wheat, spring wheat, Ronanów, Afognak.

Timothy hay.

Tundra moss.

Moss berry bushes.

Hemp.

In connection with the cereal exhibit is a fine collection of tundra mosses of the far north, embracing 18 varieties collected by Mrs. O. E. King and Mr. Silver, of Nome, Alaska. Conspicuous in this collection is the famous reindeer moss, a beautiful white coralline appearing fungi, very nutritious, which constitutes the principal food of the reindeer (and which they can find when needed—even beneath the deepest snows—clearing away the snow themselves), and which is shown in pans of water.

VEGETABLES AND FRUITS.

Vegetables and fruits from Alaska, loaned by Mrs. L. L. Bowers, Kodiak, Alaska:

Potatoes.
Turnips.
Radishes.
Glass bottle of cranberries.
Glass bottle of moss berries.
Glass bottle of Kostianecra berries.
Glass bottle of Molina berries.
Glass bottle of huckleberries.
Glass bottle of Morookka berries.
Glass bottle of Palianeeka berries.
Glass bottle of green pease.
Glass jar of Kestianeeka jelly.
Glass jar of Molina jelly.
Glass jar of Molina berry jelly.
Glass bottle Kostianeeka jelly.

Wax models of vegetables from the Department of Agriculture. Exact models of vegetables raised in Governor Brady's garden at Sitka, Alaska:

Rutabaga turnip (weight, 31 pounds).
Turnips.
Potatoes.
Horseradish.
Beet.
Parsnip.

Preserved fruits, loaned by the Women's Auxiliary, of Sitka, Alaska:

Yakutat strawberries, wild, 1 pint.
Alaska thimbleberries, 1 pint.
Alaska raspberries, 1 pint.
Alaska strawberries, cultivated, 1 pint.
Alaska red raspberries, 1 pint.
Alaska black currants, 1 pint.
Alaska huckleberries, 1 pint.
Alaska salmon berries, 1 pint.
Alaska strawberries, cultivated, 1 pint.
Alaska wild cranberries, 1 pint.
Alaska currant jelly, 1 glass.

8 jars of preserved wild fruits, loaned by the Women's Auxiliary, of Juneau, Alaska:

1 jar apple jelly.
1 jar cranberry jelly.
1 jar gooseberry jelly.
1 jar wild crab-apple jelly.
1 jar blue huckleberry (wild).
1 jar red currant jelly.

8 jars of preserved wild fruits, etc.—Continued.

1 jar red raspberry jam.
1 jar Maroshkin marmalade.
2 jars wild red currants, loaned by Roll Brothers, Hope city, Alaska.
1 jar cultivated red currants, loaned by A. R. McIntosh, Haines, Alaska.
Marsh huckleberry, loaned by C. P. Coe, Wood Island, Alaska.
Wild huckleberry, loaned by Mrs. L. L. Bowers, Kodiak Island.
Alaska cranberry—Moss berry (*Vaccinium vitis-idaea*), loaned by C. P. Coe, Wood Island.
Aleut wild crab-apple jelly, loaned by Mrs. L. L. Bowers, Kodiak Island.
Alaska cranberries, loaned by Roll Brothers, Hope city.
Blueberries, loaned by Roll Brothers, Hope City.
Alaska thimbleberry (wild), loaned by Mrs. Wagonner, Klawock.
Black crowberry (*Eupetrum nigrum*), loaned by Roll Brothers, Hope City.
Wild red currants (*Ribes rubrum*), Kenai Experiment Station.
Salmon berry (*Rubus spectabilis*), loaned by C. P. Coe, Wood Island.
High bush cranberries (*Viburnum pauciflorum*).
Alaska wild strawberries, loaned by Miss Selina Peterson, Yukatat.
Wild cranberry wine, loaned by Mrs. L. L. Bowers, Kodiak Island.
Wild Molina berry wine, loaned by Mrs. L. L. Bowers, Kodiak Island.
Wild huckleberry wine, loaned by Mrs. L. L. Bowers, Kodiak Island.
Wild fruit jelly, loaned by Miss Laura McQuarrie, Nome.
Wild fruit jelly, loaned by Miss Kittie Cordon, Nome.
Consignment fresh reindeer moss, loaned by Mr. R. W. Silver, Nome.
Fruit, vegetables, and berries, loaned by L. L. Bowers, of Kodiak, Alaska:
Berries.
Fruit.
Lettuce.
Onions.
Potatoes.
Turnips.
Radishes.
Cranberries.

PRESSED WILD FLOWERS OF ALASKA.

Loaned by the Women's Auxiliary, of
Sitka:

Anemone narcissiflora.
Gentiana sp.
Fragaria sp.
Streptopus amplexifolius.
Rubus parviflorus.
Helianthus sp.
Cassiope stelleriana.
Fritillaria kantsahat censis.
Latteyrus maritimus.
Apargidium boreale.
Lupinus unslachenis.
Aruncus aruncus.
Phyllodoce aleutica.
Potentilla aucerina.
Campanula lamsdorffiana.
Aconitum delphinifolium.
Trientalia arctica.
Vaccinium uliginosum.
Castilleja pariflora.
Andromeda polifolia.
Tofieldia.
Viola patutris.
Roschinachia glabra.
Kalmia glauca.
Linniorchis linnorchis.
Copia asplenifolium.
Menyanthes crista-galli.
Saxifraga noltana.
Pinguicula vulgaris.
Cornus canadensis.
Soldiago.
Cochlearia.
Coptis trifolia.
Ranunculus nelsonia.
Genim cattlefolium.
Viola glabella.
Ledum latifolium.
Iodecatheon frigidum.
Eriogyna pectinata.
Caltha leptosepala.
Gerarium eriathum.
Tellima grandiflora.
Mimulus langsдорfi.
Saxifraga oppositiflora.
Cladonia.
Primula.
Tiarella trifoliata.
Moneses uniflora.
Aster peregrina.
Oxycoccus oxycoccus.
Rubus chamamemorus.

Loaned by the Women's Auxiliary, of
Sitka—Continued.

Loiseburia procumbens.
Alnus glutinosa.
Aquilegia canadensis.
Trifolium repens.
Montea sibericum.
Ranunculus coolegii.
Rubus spectabilis.
Romanzoffia sitchensis.
Rides, bractiosum,
Ribes porsiflorum.

Sent by Women's Auxiliary of Juneau:
40 varieties of pressed wild flow-
ers of Alaska, nicely mounted on
cardboard.

Snapdragon.
Wild rose.
Columbine.
Cowslip.
Buttercups.
Solomon's seal.
Riceflower.
Marsh marigold.
Wild geranium.
Anemone.
Larkspur.
Sweet pea.
Wild dandelion.
Bluebell.

N. W. T., from Dawson:

Cowslip.
Columbine.
Buttercups.
Anemone.
Wild rose.
Wild geranium.
Yellow violets.
Wild forget-me-nots.
Thimbleberry.
Wild celery.
Riceflower.
Fire flowers.
Solomon's seal.
Wild heliotrope.
Sand flower.
Wild pea.
Cyclamen.
Double buttercups.
Monkshood.
Garden heliotrope.
Maidenhair fern.
Bunchberry.

ETHNOLOGY.

Twenty totem poles and two native houses and one war canoe located about the Alaska building.—The totem poles in the Alaska exhibit come from different places on Prince of Wales Island and from two different tribes. At an old village called Tuxekan four were obtained. These represent the totem or heraldic sign of each family, and the back part of the totem was excavated to receive the charred bones of friends and ancestors of the man who raised it. The Thlingits were in the habit of burning their dead, but carefully preserved all the charred embers from the funeral pile. These totem poles were always erected on great occasions, and the bones were usually carefully wrapped in a new blanket and incased in the back part of the totem. One of the totems, when taken down, had the remains of a child in the butt end of a pole which was in the ground—four

feet of it was sawed off and put back in the hole. A Thlingit at Klawak, named "Chief Tom," presented one of the poles elaborately carved—it had contained remains also. One of these Thlingit poles was given by Yennate, who is now a very old man. He said he made it in honor of his mother. This is the one with the big raven—the head downward—his mother belonged to the Raven Clan. Under this a bear—the brown bear is the totem of the Kokwonton tribe. The woman's husband could be of the Kokwonton tribe, and doubtless was. Underneath this bear is an Indian with a cane. This represents the brother of the woman, Yennate's uncle, who was a very noted Indian doctor or sorcerer in years gone by. The two faces or masks underneath the doctor represent two slaves owned by the doctor.

The large poles are from the Hydah villages—three were obtained from an old village called Sukkwan; one from Klinkwan; two from Onhonklis, south of Howkan, and three were obtained from a place southwest side of Prince of Wales, called Kasaan. These Hydah carvings are really folklore stories carved in wood. The Hydahs did not burn their dead, but buried them, usually in the butt of a great cedar tree raised on end; but sometimes the remains were buried at the base of a totem pole. In fact, when some of these poles were obtained the remains of two or three persons were found and reinterred. All these poles, together with two native houses and a large war canoe, and the carvings on the inner posts of the houses, were gratuitously donated by the natives. By the aid of the officers and crew of the revenue cutter *Rush*, they were dug out and lowered and transported to places where they could be shipped on regular steamship lines to Seattle. The steamship companies very kindly aided the Alaska Exhibit Commission in transporting all exhibits from Alaska free of cost to Seattle. This is the first time that such an exhibition of these curious and interesting works of our northern tribes has been shown to any considerable mass of people.

BASKETRY AND CURIOS.

Private collection of basketry and curios, loaned by H. D. Reynolds, president of the Reynolds Alaska Development Company, Valdez, Alaska:

Yakutat covered jewel basket.
 Sitka sealskin ornamental hanging basket.
 Yakutat dice box.
 Small Yakutat covered jewel basket.
 Juneau basket-covered bottle.
 Juneau figured hanging basket.
 Taku transparent sheep horn totem spoon.
 Aleutian berry basket.
 Dundas black horn spoon.
 Yakutat covered button basket.
 Yakutat seal flipper wall case.
 Yakutat bead-covered perfume bottle.
 Deerskin money purse.
 Thlingit covered jewel basket.
 Yakutat covered jewel basket.
 Taku chief's basket (Troy design).
 Yakutat basket (plain design).
 Sitka split wood photo case.
 Sitka plaque, beautiful and intricate design.
 Attu basket.
 Attu covered berry basket, knob top.
 Makushun sea-grass berry basket.
 Attu wastebasket, large.
 Yakutat wastebasket.
 Attu creme de menthe bottle, open-work design.

Private collection, etc.—Continued.

Attu basket-covered bottle, extra fine. This is the gem of the collection, and was pronounced by Governor Brady the finest piece of native work ever done in Alaska.
 Two Yakutat small baskets, very old.
 Prayer mat.
 Seward Peninsula muckluks.
 Nuggets, curios, baskets, etc., loaned by Mrs. Mary E. Hart, Nome.
 Two bottles of gold dust, Nome district.
 Nineteen gold nuggets, Nome district.
 Piece of ambergris, 4 ounces, Cape Prince of Wales.
 Two lynx skins, Rampart.
 White fox skin, Unalaklik.
 Red fox skin, Sinrock.
 Two large Hoonah baskets, southeast Alaska.
 Two Sitka baskets, southeast Alaska.
 Small Hoonah basket, southeast Alaska.
 Small Hoonah tray (woven), southeast Alaska.
 Two small Hoonah rattle baskets, Hoonah.
 Small Hoonah basket, Hoonah.
 Small Attu rattle basket, Hoonah.
 Two small Yakutat baskets.
 Small Hoonah basket (very old).
 Skin kayak.

Nuggets, curios, baskets, etc.—Cont'd.

Southeast Alaska dugout.
 Pair water muckluks, Eskimo.
 Pair fur muckluks, Eskimo.
 Summer muckluks, Eskimo.
 Pair beaded moccasins, southeast Alaska.
 Deerskin beaded pouch, Eskimo.
 Eider duck beaded pouch, Eskimo.
 Sealskin beaded pouch, southeast Alaska.
 Copper-mounted frog mortar, Hoonah.
 Rain parka, Eskimo.
 Two large wooden spoons, Hoonah.
 Small totem pole, Hoonah.
 Walrus-bone mug, Eskimo.
 Pair deerskin gloves, large.
 Pair deerskin mitts, small, Eskimo.
 Large walrus-hide football, Eskimo.
 Large seal muckluck, Eskimo.
 Two fan shells, Wrangell.
 Two murex shells, Wrangell.
 Two arctic rabbit feet, Nome.
 Four garnets, Wrangell.
 Beaten copper totem knife, Skagway.
 Two ivory dolls, Eskimo, Nome.
 Walrus tooth, Kotezebue Sound.
 Polar bear tusk, Kotzebue Sound.
 Pair bead bracelets, Sinrock.
 String salmon beads, Solomon.
 Large man-eating crab claw, Nome.
 Winter ermine skin, Nome.
 Summer ermine skin, Nome.
 Wooden mask, southeast Alaska.
 Two Indian cradles, southeast Alaska.
 Small pair fur muckluks, Eskimo.
 Fifty Alaskan photographs—far north.
 Carved horn spoon, southeast Alaska.
 Yakutat basket.
 Beaded basket.
 Large Attu baskets.
 Large Yakutat baskets.
 Two Attu card cases.
 Waterproof bag.

Nuggets, curios, baskets, etc.—Cont'd.

Three sealskin pouches.
 Beaded pouches.
 Beaded shell
 Deer-foot purse.
 Seal-foot purse.
 Sealskin basket.
 Fish-skin basket.
 Indian baskets, loaned by Mrs. J. J. Boyce, Juneau, Alaska (56 baskets).
 Round top.
 Middle-size pattern.
 Covered.
 Round basket.
 Klanak pattern cover.
 Large.
 Round basket.
 Openwork, with cover, green.
 Openwork, with flight of birds.
 Very closely woven—covered.
 Round basket.
 Large.
 Sally bag.
 Flat basket—old.
 Small basket.
 Middle-size basket.
 Large size.
 Small flight of birds.
 Klamath.
 Haida—old.
 Large size.
 Old Haida basket.
 Old covered bottle.
 Hyda basket.
 Round basket.
 Basket of intestines.
 Oblong.
 Sally bag.
 Covered bottle.
 Beaded bottle.
 Square bottle.
 Round, low dish.
 Aleutian, big.
 Aleutian, small, covered.
 Aleutian, small, trimmed with feathers.
 Aleutian, small, trimmed with feathers, pot shaped.
 Tobacco pouch.
 Fine woven basket.
 Old Chilcat.
 Round, old, small basket.

FORESTRY.

Spruce.
 Hemlock.
 Red Cedar.
 Crab apple.

Yellow cedar.
 Cottonwood.
 Alder.

MOUNTED HEADS.

[Loaned by J. B. Howard, Eagle City, Alaska.]

Mountain sheep.
 Moose head.

Caribou head.

MOUNTED BIRDS.

[Loaned by Mr. Peter C. Jensen, Wrangell, Alaska.]

2 harlequin ducks (male).	1 female harlequin duck.
2 harlequin ducks (male and female).	1 buffaloo-head duck.
2 harlequin ducks.	2 white swans.
2 grouse.	1 crane.
1 female grouse.	2 white herring gulls.
1 Canvasback duck.	1 black-throated loon.
1 Pair blackheaded tern.	2 gold-eye ducks (pair).
2 old squaw ducks, or long tail.	1 spring sail duck.
2 harlequin ducks (couple).	2 mallard ducks.
1 male black-headed gull.	1 green-winged teal.
1 goose.	1 sea swallow.
2 American mergansett (pair).	1 rock ptarmigan.
2 mallard ducks.	1 pair small dovekins.
1 foolish guillemant (white and green).	1 whistling marmot.
1 red-throated loon.	8 Bohemian wax-wings.
2 black guillemant.	1 fine grose.

PHOTOGRAPHS OF BIRDS.

[Loaned by Alfred H. Dunham, game warden and chairman ornithological department, Alaska Academy of Sciences.]

Snow owls.	Gray cyrfalcon.
Pacific eider ducks.	Red-faced cormorant.
King eider ducks.	Point Barrow gull.
Emperor goose.	Long-tailed jarger.
Willow ptarmigan.	Black-throated loon.
Rock ptarmigan.	Female Steller eider duck.
Spectacle eider duck.	Kittiwake.
Steller's eider duck.	Red-tailed hawk.
Harlequin duck.	Pomarine jarger.
Female king eider duck.	Willow ptarmigan in spring.
Female Pacific eider duck.	Sabines gull.
Horned puffin.	Arctic tern.

INDIAN CURIOS.

J. S. Romig collection (part).—Sent from the Department of the Interior, Washington, D. C.:	A very large and interesting collection of Indian curios, loaned by Hon. John G. Brady, governor of Alaska, numbering 1,360, consisting of—
Fur coat of the Elowatok family.	Masks, carved totem poles, spoons, swords, etc.
Fur cap, extra fine.	Fur coat, shoes, gloves.
Pair men's fancy boots.	Boats, bows and arrows, shields.
Pair mittens and 1 chew box.	Carved pieces.
Native violin.	Baskets.
2 Kachima axes.	Beadwork—belts, bags, etc.
Model kachima and dolls.	Medicine charm.
Fire machine.	J. R. Heckman & Co., owners:
Set squirrel snares.	1 wooden bowl.
Bundle willow bark net twine.	1 carved spoon.
Fishhook and line.	E. K. Turner, owner:
Pair native goggles.	5 horn spoons.
Small stone adz.	4 wooden spoons.
Small stone fish knife.	2 halibut hooks.
Ivory pipe.	1 paddle.
Water bottle.	1 doll.
Drinking cup.	3 pairs moccasins.
Story knife.	2 axes.
Oil lamps.	1 basket.
Old stone pot.	2 wall pockets.
Pair grass socks and grass mats.	1 mat.
Wolf head ammunition bag, re-loading tool, and bullet mold.	Mrs. Swineford, owner, 1 bundle photos.
2 ladles or wooden spoons.	
2 skin scrapers.	

Mrs. H. Russell, owner, 1 bundle photos.

Mrs. Stedman, owner, 1 bundle photos.
E. K. Turner, owner, 1 brass candlestick.

Mrs. O. E. King's exhibit of ivory and curios from Nome:

Extra large cribbage board, ivory.

Old ivory cribbage board.

Carved small cribbage board, ivory.

Cribbage board, plain ivory.

2 paper weights, ivory.

Large paper weight, ivory.

2 carved napkin rings, ivory.

Green small napkin ring.

Fox trap.

7 small ivory picks.

2 small ivory shovels.

Ivory razor.

Ivory pipe.

Polar bear tooth.

Ivory ring.

Ivory seal button.

Ivory seal head button.

Carved button.

Plain seal button.

Round button.

Boat hook.

Large gavel.

Small gavel.

Net hook.

Walrus tooth.

Point Barrow basket.

Walrus basket.

Walrus hook.

Spear.

Lead pipe.

Pocketbook marked "Nome."

Small snowshoes.

Small doll, Parka.

Bow.

Large football.

Dressed Eskimo doll.

Little box.

Skin scraper.

Net (fish net).

Tomcod hook and sinker.

Large fur mat.

5 pieces of whalebone.

Pair white mukluks.

2 small rain coats.

Baby hood, beaded.

Small fur pants.

Sealskin slippers.

Roller, sealskin.

Wooden Aidkok hook.

Piece of mastodon tooth.

Wooden whale amulet.

2 wooden dishes.

Imitation of jade stone.

Old top.

Fine fish net.

Small tool box.

Jointed wooden doll.

Beaded pocketbook.

Ivory knife carver.

Harpoon point.

Bird point.

Mukluk sole.

Mrs. O. E. King's exhibit, etc.—Cont'd.

Canoe.

Ice scoop.

Eskimo lamp.

Large kiak.

Small kiak.

Walrus spear (large).

3 small mukluks.

Child's squirrel Parka.

10 wooden masks.

2 small balls.

Small sled.

Bone cup.

8 snowshoe rabbit feet.

Pair wooden snow glasses.

Pair leather snow glasses.

2 baby sealskins.

Dog mukluk.

Eskimo powderhorn.

4 strings of beads.

Pair bead bracelets.

Oomak.

Large oval box.

Whalebone pick.

Whalebone shovel.

16 Sawtooth Range Mountain pebbles.

Walrus bone.

Whale-shaped hook box.

Curios, rugs, etc., loaned by Mrs. A. G. Lane:

Seal rug, 5 feet square (pieced).

2 Seward Peninsula baskets.

3 Attu baskets.

Fish skin.

Chushega basket.

Needlecase.

Wrench old ivory bear head.

Ivory flat crinkled tusk.

Seal call.

Trap, ivory.

2 pipes.

Scraper.

Ivory knife.

Ivory mukluk crinkler.

Ivory berry pitcher.

Ivory skin scraper.

Ivory babies.

Ivory body, three buttons.

Ivory chain, 34 links.

Ivory duck snare, 6 ivory buttons.

Piece whalebone.

Ivory bear, old ivory.

Knife scabbard.

Valve in large engine (W. A. Woodsen).

Small pair mukluks.

Seal intestine, prepared.

Reindeer sinew fish net.

Whalebone fish net.

Exhibit of W. S. Flanagan, from Forks of Buckland River, Alaska:

2 ivory knitting needles.

Ivory fire-making drill.

Ivory tomcod hook.

Bone pike hook.

Ivory fish knife.

Ivory paper cutter.

Ivory man.

Exhibit of W. S. Flanagan, etc.—Cont'd.

Ivory sleds.
 Bone image.
 Bone comb.
 Bone spear point.
 Bone salmon spear.
 Bone malamute head.
 Bone gauge.
 2 ivory buttons.
 2 ivory white whales.
 Ivory seal.
 Ivory hunter.
 Dog and seals.
 Snuff box (wood).
 Ivory chain.

Huetberg collection of baskets, curios, etc., loaned by the Swedish Evangelical Mission Covenant of America, from North Park College, Chicago:

Wooden sleigh.
 4 bone knives.
 3 bone pipes.
 Small bone sleigh.
 8 dancing boys (bone).
 4 bone couplings.
 Small arrow.
 Fly bone.
 Chain bone.
 2 neckties (beads).
 2 bead bags, for wall ornament.
 7 bone knives.
 3 bone spoons.
 5 wooden images.
 3 bone fishhooks.
 Bone image.
 2 bone bowls.
 5 bone links.
 Curiosity bone.
 Bone fish.
 Wooden box with ivory animals.
 Idol and 1 pig image.
 Bow.
 Wooden canoe.
 5 wooden arrows.
 4 fishing tackle.
 Package of fishing tackle of leather.
 Canoe, large.
 Canoe, small.
 Bone carving.
 Copper sword.
 Bone fishhook.
 2 small paddles.
 Fish trap, wood frame.

Mr. D. W. Fales's private collection, Juneau:

Indian hat, Whale Killer.
 4 paddles, burnt wood, southeast Alaska.
 Stone totem pole.
 2 halibut fishhooks (wood).
 5 wooden spoons.
 Cap and ball pistol.

Exhibits loaned by the Ladies' Auxiliary. Carving done by Kush Hat, native of Juneau:

Large paddle.
 Large paddle, carved.
 Small paddle, carved.

Exhibits loaned by the Ladies' Auxiliary—Continued.

Carved (mountain goat) spoon.
 Silver and gold puzzle ring.
 Silver bracelet, raised head.
 Silver bracelet, plain.
 Silver and gold ring.
 Crab-leg pin, silver mountings.
 Silver spoon.

Baskets, curios, etc., loaned by Mrs. C. S. Johnson, Nome, Alaska:

Attu with cover.
 Yakutat.
 Attu with cover.
 Port Clarence.
 Stikeen.
 Yakutat dish.
 Attu cigar case.
 Two small yakutats.
 Very old yakutat, original dyes.
 Bottle yakutat.
 Attu mat.
 Salmon skin bag.
 Poke.
 Bead bag, Yukon River.
 Eskimo bag.
 Totem.
 Horn cross, native work.
 Horn spoon.
 Horn spoon.
 Belt buckle.
 Skin boat and figures.
 Wooden dish.
 Birch basket.
 Mail sled.
 Dog sled.
 Canoe.
 Snowshoes.
 Reindeer boots.
 Small muckluks.
 Dress of Laplanders.
 Ivory buttons.
 Bracelet and earrings.
 Ivory pieces—three.
 Ivory bowl.
 Needle case.
 Napkin ring.
 Skin knife.
 Eagle robe.

P. Kern's collection of baskets and curios from Skagway, Alaska:

81 baskets.
 2 rattles.
 1 totem.
 7 paddles.
 1 pair snowshoes.

Curios loaned by the Women's Auxiliary, of Ketchikan, Alaska:

Mrs. Burkhardt (Hunt Grocery Company), owner—1 star fish,
 1 mat, 1 doll, 1 canoe, 1 bark pocket, 1 bark bag, 1 small pocket, 1 stone totem, 1 fine bark basket, 1 bark basket, 1 bundle photos, 1 Haidah basket.
 Mrs. Ryus, owner, 1 bark basket.
 Miss Edmunds, owner, 1 bat (colored.)

OLD RUSSIAN BRASS VESSELS AND ORNAMENTS.

[Loaned by Capt. Dick Craine, proprietor of the Eskimo village, World's Fair.]

Samover.
Copper kettle.
Slop bowl.
Brass crucifix.
Embossed brass picture.
Embossed brass medal pendant.

Madonna and child (etching).
2 small paintings.
Brass church ornament.
Brass faucet.
Wooden urn.

FANCY NEEDLEWORK.

Exhibited by the Women's Auxiliary,
of Sitka:

Poppy embroidered scarf work, by
Mrs. Starreck.
Battenberg tea cloth, by Mrs. Gov-
ernor John G. Brady.
Battenberg centerpiece, by Mrs.
Governor John G. Brady.
Holly embroidered piece, by Mrs.
Fagg.
Lace collar, by Miss Clara Fagg.
2 square doilies, small, by Mrs.
Starreck.
1 crocheted mat, by Mrs. Starreck.
Russian women's work.
Fancy work, painting and shells, ex-
hibited by the Women's Auxiliary,
of Juneau:
Drawn work handkerchief, made
by Mrs. Petersen.
Bunch berry embroidered. By
girl 12 years old (Ethel Tripp).
Tea cloth, Mrs. Jones.
Tea cloth, Mrs. Laughlin.
Battenberg centerpiece, Mrs. Jor-
gensen.
Burgevis centerpiece, Mrs. Chris-
tiansen.
Tea cloth centerpiece, Mrs. Bean.
Embroidered centerpiece, Miss
Goldstein.

Fancy work—Continued.

Toilet cushion, point lace, Mrs.
J. P. Jorgensen.
Handkerchief bag, point lace, Mrs.
J. P. Jorgensen.
Sachet bag, point lace, Mrs. J. P.
Jorgensen.
Point lace doily, Mrs. J. P. Jorgen-
sen.
Brown lace doily, Mrs. John
Davies.
Teneriff lace doily, Mrs. E. E.
Smith.
Holly centerpiece, embroidered.
Bromide view of totem pole.
Bromide view of Juneau.
Bromide view of Sitka.
Bromide view of court-house, Ju-
neau.
Bromide view of dog team, Yukon
Trail.
Bromide view of Muir Glacier.
Sea snails, 9 by 1 by 5, only 15.
Sea urchin (B. O.) small, 1 only.
Mussel shell, 1 only.
Sea warts, 38.
Abolona shell, 1.
Barnacle (small), 1.
Clam, very small, 2 pair.
Vertebra sea louse, 1 only.
Pebbles from the beach, 6

LISTS OMITTED FROM CLASS OF "SCHOOL EXHIBITS."

Nome public school.—Album of Nome public school work, containing pictures of first, second, and third grade classes. Album containing pictures of first and second grade classes, drawings and regular school work. Nome high school work, pictures, drawings, paintings, Latin algebra, physics, botany, etc. Third and fourth grades, album of drawings, pictures of classes and regular school work.

Ketchikan public school.—School work—Brush and ink work, paintings, drawings, etc.

Skagway.—Photographs of classes, pictures of interest, first, second, third, fourth, fifth, sixth, seventh, and eighth grades illustrating their work in gram-
mar, language, drawings, pen and ink work, arithmetic, etc.

Wrangell.—Public school exhibit, kindergarten work, drawing, language, arithmetic, geography, etc.

Sitka public school work.—Kindergarten work, first, second, third, fourth, fifth, sixth, seventh, and eighth grades, and high school, algebra, grammar, geog-
raphy, relief maps, drawing, kindergarten and regular school work.

APPENDIX S.

AWARDS FOR THE ALASKA BUILDING AND THE EXHIBITS THEREIN APPROVED BY THE SUPERIOR JURY OF AWARDS OF THE LOUISIANA PURCHASE EXPOSITION.

ALASKA BUILDING, LOUISIANA PURCHASE EXPOSITION,

St. Louis, November 25, 1904.

The following awards for the Alaska building and the exhibits in the Alaska building have been approved by the superior jury of awards of the Louisiana Purchase Exposition:

Group 37.—Installation of Alaska exhibits, Governor John G. Brady, Sitka, Alaska, gold medal. Collaborators: Mr. Joseph B. Marvin, Washington, D. C., gold medal; Mrs. Mary E. Hart, Nome, Alaska, gold medal.

EDUCATION.

Group 2.—Juneau public schools, elementary and high school work, gold medal. Nome public schools, silver medal. Dr. Sheldon Jackson, collective exhibit, kindergarten work, etc., of the Government and mission schools of Alaska, silver medal.

Group 6.—Sitka Industrial Training School, silver medal.

Group 1.—Sitka public schools, bronze medal. Skagway public schools, bronze medal. Ketchikan public schools (crayon work and drawing), bronze medal. Wrangell public schools, bronze medal.

MANUFACTURES.

Group 34.—District of Alaska, collective exhibit of native basket work, contributed by Mrs. J. J. Boyce, Juneau; Mr. H. D. Reynolds, Valdez; Mr. Peter Kern, Skagway; Mrs. C. D. Lane, Nome; Mrs. Mary E. Hart, Nome; Mrs. O. E. King, Nome; Mrs. C. S. Johnson, Nome; Mrs. F. J. Hunt, Ketchikan; Mrs. Joseph B. Marvin, Washington, D. C. Gold medal.

Group 34.—Mrs. C. D. Lane, Nome, Alaska, old walrus-tusk ivory, silver medal.

Group 34.—Mrs. O. E. King, Nome, Alaska, modern walrus-tusk ivory, silver medal.

Group 58.—Juneau Women's L. P. E. Auxiliary, hand-made embroidery and laces, contributed by Miss Ethel Tripp, Mrs. Jones, Mrs. Laughlin, Mrs. Bean, Mrs. Petersen, Mrs. Jorgensen, Mrs. Christiansen, Mrs. Davies, Mrs. Smith, Miss Goldstein, gold medal. Sitka Women's L. P. E. Auxiliary, hand-made embroidery and laces, contributed by Mrs. John G. Brady, Mrs. Starrack, Mrs. Fagg, and Miss Clara Fagg, silver medal.

LIBERAL ARTS.

Group 16.—Alaska Women's L. P. E. Auxiliaries, stereoptic views, gold medal.

TRANSPORTATION.

Group 72.—Maurice Johnson, Seattle, Wash., dog sled, bronze medal.

Group 75.—Sitka Industrial Training School, modern boat, made by native boys, bronze medal. District of Alaska, native dug-out, very old, bronze medal.

AGRICULTURE.

Group 84.—Professor Georgeson, Sitka, Alaska, cereals, silver medal.

FORESTRY.

Group 113.—District of Alaska, forestry specimens, gold medal. Governor John G. Brady, Sitka, Alaska, collaborator, silver medal. District of Alaska, cabinet woods, including grand staircase, gold medal.

MINES AND METALLURGY.

Group 116.—Alaska Marble Company, Wrangell, Alaska, ornamental and building stone, gold medal. District of Alaska, collective exhibit coal and petroleum, silver medal. District of Alaska, collective exhibit copper ore, gold medal.

Group 118.—Alaska-Treadwell Gold Mining Company, gold pyramid, representing output, gold medal. Alaska Tin Mines Company (Limited), tin in bricks and crude ore, gold medal.

FISH AND GAME.

Group 121.—Simmons Fur Company. Alaska skins and furs, gold medal. Peter C. Jensen, Wrangell, Alaska, exhibit of Alaska birds, silver medal.

Group 123.—Alaska Packers' Association, canned salmon, gold medal. The Alaska Oil and Guano Company, Killisnoo, Alaska, herring oil, silver medal. The Alaska Oil and Guano Company, Killisnoo, Alaska, fish guano, bronze medal.

HORTICULTURE.

Group 108.—Women's L. P. E. Auxiliary of Juneau, wild flowers of Alaska, silver medal.

ANTHROPOLOGY.

Group 127.—District of Alaska, collection of totem poles and anthropological specimens, gold medal.

PREPARED UNDER THE DIRECTION OF
BRIGADIER GENERAL A.W.GREELY
CHIEF SIGNAL OFFICER U.S. ARMY
OCTOBER 1904

Statute Miles

LEGEND

DISTANCES IN MILES

CABLES		TOTAL		TOTAL	
Seattle	0	0	Go Trust	58	338
Sino	1070	1070	Calpha	60	371
Juneau	292	292	Farbanks	60	351
El Wm Seward	292	292	Ching	41	572
Skagway	20	20	Nenana	47	534
Valdez	536	456	Tovarna	53	689
			Baker	37	726
			Clay	18	744
TELEGRAPH					
El Usset	0	0	Kampar	32	162
Lone River	5	5	Gasma	35	761
Valdez	3	8	El Gibson	43	806
Keystone	12	17	Birches	53	861
May	19	36	Kahrnes	40	901
Tenhill	24	24	Wolzei	36	939
Tonsina	24	24	Jouden	35	974
Copper Center	25	209	Kogukun	48	1022
Chitina	66	175	Ching	32	1054
Wenatchee	66	175	Kollag	40	1096
Tanana Crossing	51	272	Old Woman	45	1139
Relichumash	53	327	Goisova	30	1219
North Fork	30	357	St. Michael	35	1254
El Elbert	24	381	Safety Wireless	101	1361
Boundary	12	337	El Ovis	35	1406
Summit	54	381	Name	41	1385



FROM JUNEAU
TO
FORTY MILE CREEK

Legend

- Capital, Survey Office
- Land Office
- Reservation, or other area
- Spices in various other purposes
- Roads to the interior by water and overland
- Rail Roads proposed
- Railroad Lines
- Public Lands
- Alaska State Lands
- Copper
- Coal
- Rail Roads
- Episcopal, Missionary
- Swedish Evangelical
- Roman Catholic
- Greek Catholic
- Methodist Episcopal
- Quaker
- Baptist
- Presbyterian
- Church of England
- Land District Boundaries

DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
HON. BINGER HERMANN, COMMISSIONER

MAP
OF
ALASKA

Compiled from the official records of the General Land Office, U.S. Coast & Geodetic Survey, U.S. Geological Survey, Canadian and other sources, and the direction of
HARRY KING, C.E.
Chief of Drafting Division
1898

Scale 1 inch = 72 Miles



REPORT OF THE GOVERNOR OF HAWAII.

REPORT

OF THE

GOVERNOR OF HAWAII.

EXECUTIVE CHAMBER,
Honolulu, Hawaii, September 7, 1904.

SIR: I have the honor to submit herewith my annual report on affairs in Hawaii for 1904:

The Territory of Hawaii is among the most isolated of the political subdivisions of the United States, but by no means the smallest or least important, for has it not upset the claim of the famous Bay State to be the "Hub," in that a circle drawn with the Island of Hawaii as a center shows the Philippines on the circumference to the west and the city of Boston just on the edge to the east, and there are those who ascribe certain opposition to expansion to this fact.

Hawaii is not an insular possession, but an integral part of the Union, organized as a Territory, with as large a measure of self-government as has ever been granted by Congress, and it is destined to play an important part in American supremacy of the Pacific.

NUMBER OF ISLANDS AND LOCATIONS.

The Territory is composed of eight principal islands, with an area of 6,640 square miles—580 square miles more than Connecticut and Rhode Island combined—located in the Pacific Ocean, some 22° north of the equator, 2,100 miles from San Francisco, and 3,340 miles from Japan, at a point which every one of that endless line of steamers must pass that will soon be carrying, through the Panama Canal, an immense traffic between the Atlantic ports of Europe and America and the Orient; commerce that needs no vivid imagination to recognize will far surpass that of the entire Atlantic Ocean, and the impulse of which is already felt in the rapid increase of length and draft of steamers now calling at Honolulu.

RESOURCES.

A study of these pages will show that the resources of this Territory are almost entirely agricultural. Owing to volcanic origin there are no minerals and the forests furnish no lumber. Sugar is the main product and the article which follows shows clearly its importance. Rice has for years stood second, but the restriction of Chinese immigration and competition with Louisiana have crippled its production. Coffee at one time bid fair to take second place in our exports, but the tremendous increase in the world's production of coffee and lack of protection has caused such a fall in the market value that many fields

were abandoned as unprofitable. Undoubtedly Hawaii's opportunities for development consist in the products from tropical plants or vines which can not be grown in the temperate zone—such as sugar, coffee, pineapples, vanilla, guava jellies, sisal, etc.

The government lands are managed by a commissioner of public lands, through whose courtesy the following detailed report is obtained. The proceeds of the sale of lands are by law to be applied to the redemption of the Territory's bonded debt.

The best asset of the Territory is the unbroken record of its people in meeting every public obligation. No matter what changes have occurred or what element was in control, there has never been even a technical default.

Another asset of great value is illustrated by the taxes collected and the willingness with which they are paid. The large corporations, principally those dealing in sugar, pay over 50 per cent of the taxes received, and the revenue from the tax on personal property almost equals that on real. Both facts illustrate a recognition on the part of the people that the government must be supported and shows a disposition to assist that surpasses that of most communities.

CLIMATE.

The climate is unexcelled, and owing to the trade winds and ocean currents, it can not be compared with other points of the same latitude or isotherm.

TEMPERATURE.

The temperature varies from an annual average of 74° on the seashore and 64° on the high land to 32° on the summits of the highest mountains, which are often snowclad.

RAIN.

The range of rainfall is from a few inches per annum on the dry and deserted lava-covered areas on the lee side to some 400 inches or more in special localities on the well watered and wooded slopes to the windward.

HEALTH.

During the year the Territory has been fortunate in avoiding all epidemics, though there have been a few isolated sporadic cases of bubonic plague.

By a reference to the article on the health conditions in the Territory of Hawaii, it will be seen how peculiarly important our relations are to the question of health and how seriously they affect the commerce of the Pacific. The Panama Canal is now a certainty, and it is therefore none too soon to prepare Honolulu for the increased commerce it will bring. Tropical diseases prevalent at the Isthmus are now unknown in Hawaii, and our experience with Oriental diseases shows they find a ready culture under our equable climatic conditions. That the port of Honolulu should be clean concerns not only the Territory of Hawaii, but the entire Pacific coast of the United States, and to keep it so there should be every assistance from the Federal Government. In order that this problem may be approached satisfacto-

rily, it has been very properly suggested by the chamber of commerce that Congress authorize the President to appoint a commission, to consist of the surgeon in charge of the Marine-Hospital Service, a United States engineer connected with the War Department, and the local president of the board of health, to study the situation on the ground here and report to Congress whatever changes in quarantine regulation or regulations and methods of local authority or public works they may deem advisable for bettering the health conditions of this port. Such a plan could not but be beneficial to American interests.

POPULATION.

The last census, of 1900, gave Hawaii a population of 154,001, and it is estimated that those who have left the islands offset the arrivals. In 1902 there were 12,550 registered voters. The organic act allows practically universal suffrage, there being no restriction on even the wards of the Territory at the leper settlement, while the natives were not required to understand the English language in order to qualify as voters, although compulsory education has existed here since 1850, and English has been the only language taught in the public schools since 1887.

HISTORY.

It must not be thought that the Territory of Hawaii is a new undeveloped region or that the people are ignorant. Kamehameha III voluntarily gave the people their magna charta in 1839, and history shows few such instances of unselfish surrender of arbitrary authority and power.

The Kingdom of Hawaii was first recognized as an independent nation in 1843, and continued as such until annexed by treaty in 1898. It was then absorbed by the United States, whose Constitution was immediately enforced and such laws as did not conflict were continued until Congress could act. .

ORGANIZATION.

On June 14, 1900, the so-called organic act took effect. Since then the Territory has been subject to the full result of American tariff and coastwise laws, surrendering its former postal and customs revenues to the Federal Government. This act was wisely drawn with a view to as little change as possible from the former conditions to the new. There are now no municipal nor county subdivisions. The same departments and offices that existed under the Republic of Hawaii were in most instances continued.

DEPARTMENTS.

There is a department of public works, which has charge of roads, bridges, wharves, public buildings, waterworks, sewer systems, public lighting plants, etc., throughout the whole group, and under which practically all internal improvements are conducted.

There is a board of health, in charge of the leper settlement and the inspection of fish, meat, and other foods for sale. It supervises the collection of vital statistics for the whole Territory and is given ample authority in case of epidemic. The board has constantly to supervise

the sanitary condition of every locality, and is doing much to inculcate a high public standard of cleanliness.

There is a police department, under a high sheriff, with deputy sheriffs on each island, described in detail hereafter.

A judiciary system exists, with a supreme court of three judges, whose decisions are final. There are six circuit courts, practically one on each island; and district or police courts for each of the subdivisions of the main six circuits.

A board of education, which carries on the work of the graded public schools, was established under the Monarchy, and its records have always been a source of great pride.

A treasury department, in charge of the collection of the entire funds of the Territory, either from taxes or any other revenue, has charge of our financial affairs. In this department there is a tax bureau, with an assessor and collector for each of the islands or main subdivisions. Under this department also falls the recorder's duties, with a single office located in Honolulu. The treasurer supervises all corporations, banks, and insurance companies.

An auditing department does all the bookkeeping and checks all vouchers and accounts.

COUNTY GOVERNMENT.

While the present system of government is both economical and simple, it appears to offer more advantages to the island of Oahu and the city of Honolulu, where, from necessity, nearly all authority centers. From this there has grown up a feeling of discontent in the outer districts, and instead of attempting to better the present conditions, and make through the legislature changes from time to time to provide a more thorough service, there has developed a general desire for county government, which it is thought will be a panacea for all difficulties. Just how municipalities or counties are to be organized is not yet clear. Few, if any, communities in the United States have been confronted with so difficult a task. A *de facto* active Territorial government, succeeding one in which for years has been centered the functions of both city, county, and State, with all the prerogatives and powers necessary thereto, whose securities have been sold and the proceeds disbursed in the building of local waterworks, sewer systems, and other internal improvements, some of which are revenue producing, is now desired to be cut up, with considerable of its revenue and property turned over, to elect county officials. The legislature of 1903 succeeded in passing a measure of this kind, but after an existence of thirteen days a decision of the supreme court was reached declaring that attempt illegal. At the last special session of the legislature, by joint resolution, the executive was requested to appoint a commission to draft a new county act, and it is now at work preparing such an act to be submitted to the legislature in February, 1905

LABOR CONDITIONS.

As the sugar and rice industries of the Hawaiian Islands are the only ones employing agricultural or other laborers in large numbers, the needs of the Territory in respect to the numbers, nationality, and kinds of immigrants desired reflect to a large extent the needs of those two industries. At the present time there is, outside of the sugar and

rice industries, very little room for the employment of unskilled laborers. In time to come other industries may be established which may employ a number of laborers, but there is now a necessity for only such class of laborers as can be utilized in the cane and rice fields and in other branches of the sugar business.

The conditions which exist here render it imperative for the preservation of the industries established that laborers be brought from abroad.

Most tropical sugar-growing countries either possess an indigenous laboring population, available for the cultivation of sugar cane, or have within easy reach people who are readily obtainable for tropical field work, and whose physique and constitution enable them to undertake such field work without fear of injury to their health.

There is not such an indigenous population here to supply the demands, and the tendency of the native population is not toward field work. They make good mechanics, and a portion of these are engaged in a variety of trades, but agricultural labor appears to be distasteful to them, and the number employed on sugar estates is small. This being so, it has for many years been necessary to promote immigration of field laborers to the islands, and many countries have been drawn from. There has been regularly conducted emigration from Germany, Norway and Sweden, Azores, Madeira, Portugal, Galicia, China, Japan, and Porto Rico, besides which British, Americans, Italians, and negroes (from the United States) have come in small numbers.

Under the laws of the Kingdom and later of the Republic of Hawaii, immigration from European countries was assisted by the government and industrial interests of Hawaii. Since annexation to the United States it has entirely ceased, as assisted immigration is prohibited by the United States immigration laws, and it is quite impossible to direct a voluntary immigration from Europe direct to Hawaii, the great distance and expense of transportation being insurmountable obstacles in the way of such voluntary immigration.

So far as the Europeans and Americans are concerned, it has, with one exception, been found that they were unfitted for tropical field work; they could not and would not perform it, and never for long labored as "field hands." The one exception noted is that of the Portuguese from Madeira and the Azores, who showed themselves capable of performing good field work. The improved condition of their own countries no longer necessitating emigration, these people show no disposition now to come to the islands, and even if they were willing to emigrate to Hawaii the laws of the United States would hinder them from receiving that assistance without which emigration would be for them impossible. And here it may be stated that if other Europeans can be found who could endure labor in the cane fields of Hawaii, the immigration laws would render them unable. The geographical position of these islands and the great distances which such emigrants would have to travel would necessitate their being assisted in ways which are prohibited by the laws, as they can not themselves meet the cost. Of the Portuguese who originally came to Hawaii as assisted emigrants, those who did not go to the mainland have so prospered that now they do not engage to any large extent as plantation laborers, and their children, by the aid of the excellent Hawaiian free-school system, have fitted themselves for more congenial occupation than field labor affords.

It has sometimes been argued that the Hawaiian sugar industry is in exactly the same position as that of the Southern States, and that if the latter can supply their labor needs, Hawaii should be able to do the same. This, however, is wholly misleading and untrue. If Hawaii had a large indigenous population such as exists in the Southern States, and if Hawaii could draw upon the large streams of immigration entering the United States, from which to supply its requirements, as does that section, then such a comparison might be made. If there were no indigenous population upon which the Southern States could draw to supply the labor required in the fields, and were they wholly dependent upon Italian and other European immigration for labor, they would stand in relation to Europe geographically as does Hawaii in relation to Asia. Furthermore, while there is a stream of Italian and European immigration from which the Southern States can supply their needs, the great distance to Hawaii, coupled with the rigorous laws against assisted immigration makes it impossible for Hawaii to hope for relief from that source, even if such immigrants could stand the climate, which is far more trying than is that of the South. It must be remembered that the Hawaiian Islands are situate south of the Tropic of Cancer between the nineteenth and twenty-first degrees of longitude, consequently on or about the same level with, for instance, Vera Cruz, Manzanillo, Hongkong, Bombay and Burmah, Cuba, Formosa, and Mexico City.

The impossibility of securing a sufficient supply of Hawaiian or other laborers able to endure the work in cane fields forced the planters of these islands into a reliance on China and Japan for the necessary supply. The Chinese have always proved themselves to be a law-abiding, docile, and industrious people, but the United States exclusion laws shut out this nationality from Hawaii as soon as annexation became an accomplished fact, and the only present practicable source of supply is Japan, though a small number have come from Korea.

Since the annexation of these islands the difficulty of maintaining an adequate supply of agricultural field laborers has been very great. Chinese are absolutely prohibited, and while the Japanese still come, the number of immigrant laborers hardly balances the number of Chinese and Japanese who return monthly to their homes, and the scarcity of labor has enhanced its value.

There exists in the minds of some, who are unfamiliar with the nature of field work in a tropical cane field, the impression that white men can perform the work, and that the proper way to conduct a sugar plantation is to divide the land into small lots and give them to white men to cultivate instead of doing the work of cultivation by day laborers working for a wage under one controlling management.

A list of the nationalities that have tried field work in Hawaii has already been given. To-day there are no white men laboring in cane fields here. Those who have tried it have never stayed by it for any length of time, and abundant evidence is forthcoming that the white man can not and will not stand the work of tropical cane fields.

Some little time ago the management of the Ewa plantation, on the island of Oahu, decided to experiment with American farmers. Fifteen families of highly respectable people were carefully selected in the Western States, and all their expenses paid to the plantation, where houses had been erected for them, each with a garden patch surrounding it, and where a large patch of "common land" had been set apart

for their use as pasture for such stock as they desired to keep. Here they were given lots to cultivate in cane, and every help was rendered in the way of plowing and preparing their fields, but notwithstanding this and all the Ewa Plantation Company expended on this effort to raise cane by white farmers, these people were not able to perform the necessary labor, and they drifted away by degrees, so that in about a year none of the fifteen families was left. Other experiments of a similar nature have been made with like results.

In connection with the question of "homesteading" and of encouraging small farming, it is proper here to point out that all the lands cultivated by plantation companies, who find it necessary to irrigate because of the uncertainty of the rainfall, were either arid wastes or poor pasture lands before they were acquired by these companies, who sank artesian wells, established expensive pumping plants, or constructed extensive water ditches and pipe lines, and at great cost poured water over the lands and made agriculture thereon a possibility. If development by homesteads only had been possible the lands which are now cane fields would be in their primitive condition, because their irrigation was only rendered possible by the investment of a large amount of capital.

With the largely increased world production of sugar, it is only with difficulty that cane can be grown here with a profit. The remoteness of these islands from the world's market and the cost of production are factors to be contended with.

It would be of great advantage to the agricultural interests of these islands if the United States immigration laws could be so amended as to permit the assisting of a desirable class of Portuguese laborers from the Azores or neighboring islands, or if there could be a modification of the Chinese exclusion act permitting the immigration to these islands of a limited number of Chinese agricultural laborers, such laborers to be restricted to agricultural labor and domestic service, and strictly prohibited from engaging in mechanical and mercantile pursuits; such immigration to be so regulated that the identity of each laborer may be ascertained and a record kept thereof, and that he may be required at the end of from three to five years from the date of his arrival in these islands to depart therefrom, and that such laborer be not permitted to go from these islands to the mainland. The organic act takes care of this now. No Chinese can go to the mainland from Hawaii.

Under the existing laws of immigration it is impossible for Hawaii to get immigrant classes from Europe or other occidental countries. Hawaii is 5,000 miles from the point where the great numbers of immigrants land in the United States. Hawaiian interests have tried the experiment of bringing immigrants from Atlantic ports of the United States to Hawaii, and have failed. We are therefore forced to take immigrants from the Orient or go without, and to go without means the ruin of Hawaiian industries, a condition that the Congress of the United States can not afford to permit, much less to exist, as it certainly would be making a failure of the industrial situation in Hawaii by the continued application of such a drastic measure. No class of American citizens would be injured by the special legislation above referred to, permitting a restricted immigration of field laborers from China; on the contrary, the interests of all Hawaiian citizens and producers as well as of the planters themselves would be furthered

by such legislation. The population thus created would increase the Hawaiian market for American products and be for the direct interests of workmen on the Pacific coast and in all industries supplying goods to the Territory, while it would not be a competing element upon the mainland.

By the acquisition of distant territory in the Pacific Ocean the domain of the United States is extended in such a degree that in making laws existing conditions should be recognized. In matters of immigration, the restrictions which are required for the protection of the mainland may be very injurious for distant possessions, and a distinction should be made by special legislation so that classes not desired on the mainland can be excluded, and the distant possessions provided for as their needs may require.

GENERAL FINANCES.

The finances of the Territory of Hawaii are in better shape to-day than they have been since the date of annexation by the United States. Prior to that time these islands were in receipt of an annual revenue approximating \$3,000,000. The diversion of the customs and postal revenues caused a material reduction. Notwithstanding this loss the expenses of the Territory were maintained upon their former basis. There had been no reduction in the number of employees or the current expense in any single department, and in many cases the functions of various departments had been extended. In an effort to supply this deficiency an income tax had been passed and every source of revenue had been closely scrutinized, the assessed values of all properties raised, and the whole system of direct taxation largely increased. Still this was insufficient to meet the requirements, and, of late, each year brought deficiencies which were met by anticipating the income. Such a condition of affairs could not be maintained, and it necessitated a special session of the legislature in the spring of 1904. This session lasted only twelve days, and it did most effective work in reducing the amount of expenditures that had been previously authorized and in curtailing the departments in every direction. The result is that, beginning with the 1st day of July, 1904, the appropriations for the year ending June 30, 1905, will be slightly under \$2,000,000, while a conservative estimate of the Territory's revenue for the same period is some \$200,000 in excess.

As the Territory is unable to borrow money to cover any temporary deficit it must pay cash as it goes, or issue warrants, to be redeemed as the income is collected, for bonds can only be issued, as provided by the organic act, for certain public improvements, with the approval of the President.

Notwithstanding the fact that the large collection of taxes in November last year had been exhausted by January of this year and the issuing of warrants has been continued from that time, the expenditures have now been so reduced that by November next every outstanding warrant will be paid and a considerable balance of excess applied toward the deficiencies of the previous years. Thus, in the coming year, it will not be necessary to issue so large an amount of warrants, and gradually the Territory will be reestablished on an absolutely cash basis.

At the present time the total bonded indebtedness of the Territory does not exceed $2\frac{1}{2}$ per cent of the taxable property of the Territory, and by reference to the article following on this same subject by the treasurer of the Territory will be found a detailed statement of the bonded debt.

CHINESE FUND.

In the last annual report of the governor of the Territory some mention was made in reference to this matter, and it was shown that in the changes brought about by annexation and the abrogation by Congress of all laws relating to Chinese immigration the matter of the disposal of this fund was left unprovided for and necessitated local legislation. An act "to provide for the care, custody, control, and payment of \$155,546.70, being the money now in the possession of the treasurer of the Territory designated and known as the 'Chinese fund,'" passed the legislature and was approved April 28, 1903.

By June 30, 1903, there had been paid to the claimants in accordance with this act	\$89,968.30
During the present fiscal year, ending June 30, 1904, there has been paid	56,179.75

A total of	146,148.05
Leaving an unpaid balance of	19,389.65

But in order that a full understanding in reference to this matter may be gained, it is necessary to consider the fund before the passage of the aforesaid act.

Prior to annexation, the Republic of Hawaii maintained and operated a postal savings bank. There was also in existence a board of immigration, with a paid secretary, who received the payments made by the Chinese laborers who had been admitted under the provisions of previously existing laws, by which they were required to work as agricultural laborers, mill hands, or domestic servants, and to pay a part of their wages to the Government toward a fund to be used in sending them out of the country whenever they should cease so to work. This fund was deposited in the postal savings bank to the credit of the board of immigration, in a separate account with each laborer.

Congress in its act to organize this Territory abolished the board of immigration and the postal savings bank, making provision, however, for the payment of all deposits therein. As these accounts were made up and closed, there being no law for the custody and control of this fund, the money was turned over to Mr. Wray Taylor, the former secretary of the board of immigration, and then employed by the Territory as commissioner of agriculture and forestry, who, from his intimate knowledge of the records and affairs of the board of immigration, was expected to pay out the money as it was called for by the claimants. Part of this money was deposited in the First National Bank and part was placed in a separate compartment in the vaults of the treasury.

In September, 1902, former treasurer of the Territory, W. H. Wright, absconded, and it was found he had taken considerable money from this Chinese fund. In December, 1902, Mr. Taylor left the country for a short vacation and, not returning, it was found that he also was short in his accounts with the Chinese fund.

From the meager records and inadequate books kept by Mr. Taylor, the best estimate that can be made is as follows:

In February, 1903, the unpaid claims amounted to.....	\$173,481.25
Wright's shortage	\$16,883.05
Taylor's shortage.....	1,051.50
Total	17,934.55
Balance in the treasury vaults and in the bank of.....	191,415.80

mentioned in the act passed by the Territorial legislature.

Thus no provision has yet been made covering the shortages, the matter being left open to ascertain to what extent the pass books of the laborers had been lost or destroyed and the claimants themselves have disappeared.

FIRE CLAIMS.

The court of claims final awards for the fire originated during the epidemic of bubonic plague amounted to \$1,473,173.

The legislature of 1901 recognized the entire inability of the Territory to meet these claims, yet as an earnest of good faith it made an appropriation of \$1,500,000 from moneys not otherwise appropriated and provided that the moneys from the United States Government as refund of interest on the \$4,000,000 of bonds assumed at the time of annexation should at least be applied to the payment of these claims.

Not long after \$140,000 was received from the United States Government in part payment of the interest advanced by the Territory. In order to make an even 10 per cent payment on the total claims there was taken from the Treasury an additional \$7,317.30. Thus at the time the matter was taken before Congress there was a balance unpaid of \$1,325,855.70.

By act of Congress, approved January 26, 1903, provision was made for the payment from the Federal Treasury of \$1,000,000, and the Territorial treasurer was authorized to issue 5 per cent fire-claim bonds for the payment of the remaining \$325,855.70.

Cash statement, fire claims.

1903.

Accrued interest.....	\$140,000.00
Transfer of cash from treasury	7,317.30
Cash received from sale of 162 fire-claim bonds at par.....	162,000.00
Total cash received to June 30, 1903.....	\$309,317.30
Warrants paid by treasurer to June 30, 1903.....	304,584.57
Balance cash on hand July 1, 1903.....	4,732.73

1904.

Received from sale of 153 bonds at par to June 30, 1904....	\$153,000.00
Received refund of interest from United States Govern- ment	11,589.83
Total receipts to June 30, 1904.....	169,322.56
Warrants paid to June 30, 1904.....	155,139.60
Cash balance July 1, 1904.....	14,182.96
Outstanding unpaid claims.....	13,448.83

Thus there is now an excess of cash in this fund of \$734.13, and there are 11 bonds unsold in the hands of the secretary of the Territory out of the issue of \$326,000 authorized. When the suits pending are disposed of a final settlement can be made and the whole matter closed.

EMBEZZLEMENT.

Shortly after the present administration was inaugurated, and partly due to the consequent changes, several embezzlements by public officials were discovered by the new heads of departments, a detailed statement of which can be found in the descriptive article on the auditor's department by J. H. Fisher.

In every case the employees were at once submitted to a searching examination and immediately put under arrest.

The laws of the Territory regarding embezzlement have not been clear. At the special session of the legislature this was corrected, but, as no law can be retroactive, it is doubtful in some cases whether convictions can be secured.

At present bonds have, in some instances, been required by the heads of departments without any law of authorization, and it is hoped that the next session of the legislature will remedy this by passing an act requiring bonds to be furnished by all officials, high or low, that have the handling of any of the Territory's funds.

INTERNAL-REVENUE MATTERS.

Through the courtesy of Mr. Roy H. Chamberlain, collector of internal revenue, I am enabled to present the following statement of receipts and disbursements of the office of internal revenue in the district of Hawaii during the fiscal year ending June 30, 1904:

Receipt from various sources.

Collections on lists.....	\$2, 846. 34
Fermented liquors.....	14, 470. 00
Distilled liquors (tax paid).....	5, 177. 72
Cigars and cigarettes.....	860. 02
Tobacco and snuff.....	2, 873. 94
Special taxes.....	17, 756. 78
Playing cards (tax paid).....	642. 90
Documentary stamps (post-stamping documents).....	5. 12
Total receipts.....	44, 632. 82

ADDENDA.

Source of "Special tax" collections, as above, and number of special-tax payers:	
Rectifiers of not less than 500 barrels per annum.....	3
Retail liquor dealers.....	452
Wholesale liquor dealers.....	47
Brewers of 500 barrels or more per annum.....	1
Wholesale dealers in malt liquors.....	19
Retail dealers in malt liquors.....	61
Wholesale dealers in colored oleomargarine.....	2
Manufacturers of cigars.....	1
Manufacturers of playing cards.....	1
Total special-tax payers.....	587

No special tax is required to be paid by manufacturers of cigars or playing cards, but they are required to register with this department

and do business under its surveillance, stamping their products according to law. Total disbursements, including salaries and incidental expenses, \$10,810.07.

INTERNAL IMPROVEMENTS.

Mr. C. S. Holloway, whose article on the public works department is presented herewith, not only describes the department, but gives a detailed account of the work of this nature done within the Territory.

LIGHT-HOUSES.

Notwithstanding the fact that on January 1 the Federal Government, through the Department of Commerce and Labor, took over the nineteen light-houses which had been maintained since annexation by the Territorial government, as yet there has been little or nothing done to improve the service and the light-houses themselves are in much the same condition as at the beginning of the year in regard to repairs and improvements.

A proclamation was issued by the President, taking over the sites of all such light-houses as were located on Government property, but the service is hampered from the fact that under the law no repairs can be made until the title of the land has been passed upon by the Attorney-General of the United States. In order to submit these titles to the Department of Justice, it is necessary to have abstracts made, and it is stated that the Light-House Board has no funds available for this purpose.

The service was never up to the standard of the United States, and although the Territory readily turned over to Commander Niblack, of the United States Navy, in charge of the light-house service on these islands, all the data that it had, yet there were no archives, books, drawings, documents, or models, as the lights had been added to from time to time by appropriations from the local legislature, and such alterations and repairs had been made as were found necessary.

It is understood that an invoice of modern lenses and lamps has been received, and a shipment of buoys is en route, so that some improvements are anticipated in the aids to navigation.

It is highly essential that those who are responsible for this service should realize that the methods applicable to long-established light-house districts on the mainland are entirely inadequate and inapplicable to the present conditions here. An appropriation of \$300,000 should be immediately available for this district; another \$30,000 should be added for the maintenance of the service. A light-house tender is absolutely essential for the service, and would be economy for the Federal Government.

The needs of this service are very great. The Builders and Traders' Exchange, of Honolulu, in a petition to the Territory's Delegate to Congress last September, stated that the light-houses in the Honolulu entrance channel are not of a standard required by the importance of trans-Pacific commerce.

The Hilo Board of Trade requests that \$10,000 be appropriated for the erection of a light-house at Leleiwi Point, and their communication, which is published in the Appendix, gives many strong reasons for such appropriation.

The Wailuku Improvement Association asks that suitable lights be erected at certain points on the coasts of Maui, Molokai and Lanai. It also urges the immediate reconstruction of the Lahaina light, in order that it may not be confused with other lights in that vicinity, all of which appears more fully in the association's communication which will be found in the Appendix. Patriotic Americans traversing the Pacific can not yet take pride in this service.

PUBLIC BUILDINGS.

Of the public buildings owned by the Federal Government all, with but few exceptions, were taken over from the Territory at the time of annexation.

The custom-house, located at the wharf, is a coral and stone building which is not adequate for the increased service of that department.

The post-office is a concrete building fairly well located in the center of town, but poorly arranged, and it should be supplanted by a much larger building.

No provision was ever made for the accommodation of the Federal courts, and they are now occupying part of the Territory's judiciary building, without any return to the Territory, and the space can ill be spared.

The internal-revenue department occupies, at the pleasure of the Territory and without compensation, a portion of the basement of the executive building.

ARMY BUILDINGS.

The Engineer Corps stationed here by the War Department occupies a number of wooden sheds hastily erected at the time of the Spanish war, which would do more credit to a stock yard than the housing of Federal troops.

NAVY BUILDINGS.

The buildings erected by the Navy Department consist of a small wooden office building and the coal sheds. The recent arrival of Marine Corps necessitated the removal of the coal in order to provide for the men in the sheds.

TERRITORIAL BUILDINGS.

The Territorial buildings consist of an executive building, which is used as a legislative hall and for administration purposes. It is not well arranged for the latter. The judiciary building provides for the judicial department, the Federal courts, as well as some of the administrative departments, such as the tax office, recorder's office, and the board of education. This building is very badly in need of repair and is very much overcrowded.

Few public buildings exist on the other islands other than schools and court-houses.

PRIVATE BUILDINGS.

Within the last few years there have been many substantial buildings erected in Honolulu, and in no other phase has the progress since annexation been more marked.

The largest and most pretentious is that of the Alexander Young Hotel, a structure covering 42,320 square feet, six and eight stories, said to have cost \$1,500,000.

Hackfeld & Co., sugar factors, completed in 1902 their magnificent new office building, costing over \$250,000.

The "Boston Building," containing offices, was finished in 1901, at an expenditure of nearly \$100,000, without estimating the value of the land.

The "McIntyre Building," containing the First National Bank, cost in construction over \$56,000.

Lewers & Cooke, lumber dealers, built their new office building in the latter part of 1901, at a total outlay of \$130,000.

The Odd Fellows' new building has just been completed at a construction outlay of \$75,000.

FISHERIES.

As far back as 1839, at the time when all the lands and appurtenances were the absolute possession of the monarch, Kamehameha II issued a proclamation, which had the effect of law, giving to the chiefs, who held for him large tracts of land, fishing rights adjoining their lands and running sometimes for a space of 3 miles into the ocean.

At the great division of lands in the latter forties, a land commission was appointed to examine into the titles and carry out the division between the monarch, the chiefs, and the common people. This land commission recognized the fishing rights, and the various legislatures from time to time have enacted laws recognizing the right of the owner of the land to these fishing privileges, of which there are two classes—first, those which are described by metes and bounds in land awards, and secondly, those whose boundaries have been handed down by tradition from time immemorial. Thus the waters surrounding these islands have at no time in the past been free.

By reference to the article on the attorney-general's department it will be noted that Congress abrogated all exclusive fishing rights; but in order to protect vested rights, if any existed, provided that all claims must be filed within two years, and that they should be adjudicated in the courts of this Territory, and if it should be proven they were vested rights, then the Territory must proceed to condemn and pay, from money not otherwise appropriated, for such fisheries, so that the same may be free to the public.

Owing to the high price and large consumption of fish by the people of these islands these rights are of great value; in some instances they are of more value than the land itself. There are at least 150 fishing privileges in the Territory, including almost all the waters surrounding the islands, while but 82 claims have been filed within the two years allowed by the organic act.

The matter was taken to the supreme court of the Territory, which decided that as these rights were granted by a general act of the legislature they were merely privileges and could be set aside by any future general act, and thus the claimants had no vested rights in the fisheries. The claimants, however, were not satisfied, and a case where there was an award granting fishing rights by metes and bounds was appealed to the Supreme Court of the United States, which in May of this year rendered a decision reversing the Territorial supreme court and uphold-

ing the theory of vested right. During argument it was admitted by the court that it was doubtful whether Congress had the authority to place a limit upon the time wherein claimants must bring suit or lose their vested right. Since this decision not only the successful appellant, but probably others have taken possession of their rights and prohibited general fishing within their bounds, the Territory being, of course, helpless in the matter.

The Territorial officials are proceeding to bring all of these claims to trial to ascertain whether the claimants can prove their right to the fishing privileges by competent evidence and, upon such claim being proved, to bring condemnation proceedings as required by the organic act.

The Territory, however, is absolutely unable to meet the payment of these claims as prescribed by Congress. There is already a deficiency, and it is impossible to say when there will be funds unappropriated. In the meantime, however, these private owners, owing to the result of the litigation, will undoubtedly keep possession of their fishing privileges, and, if it is desired by Congress that they should be free to all, it seems impossible to accomplish this without the payment by the Federal Government of the value of these claims.

IMMEDIATE LEGISLATION.

There has been no amendment to the organic act since it was passed in 1900, while by reference to acts creating other Territories it will be seen that Congress has ever been willing to make such amendments as changed conditions require.

In order to obtain as widespread an expression of opinion as possible on the new legislation needed, requests were sent out to various commercial bodies of the Territory, the responses to which are of interest and are found in full in the Appendix.

A. Chamber of Commerce, Honolulu.

B. Chamber of Commerce, Honolulu.

C. Merchants' Association, Honolulu.

D. Board of Trade, Hilo.

E. Improvement Association, Wailuku, Maui.

First. By far the most important question which concerns the future of these islands is the need of some modification of the immigration laws in order to provide labor to develop the resources of this Territory to the fullest extent. By reference, the article on sugar, with the remarks on labor conditions which precede, make it evident that unless some modification can be obtained, the progress of these islands will be checked. Notwithstanding the large number of Orientals that compose our population, it is evident from the school statistics that we are not being Asiaticized. The conditions here differ entirely from those which affect the Atlantic seaboard, and provision for a limited number of Orientals to work in the cane and rice fields of these islands need not necessarily antagonize those who believe in restricted immigration. The immigration laws in reference to the entrance of Chinese are already in force in these islands, and those here are not allowed to enter the ports of the Pacific coast. Thus provision could easily be made for a limited number under restrictions requiring their return at the end of a given number of years and confining them entirely to these islands.

Second. Next in point of importance is the removal of the restriction in the leasing of agricultural lands. At present the Territory can lease no agricultural lands for more than five years, while certain crops, such as sisal (a description of which appears in the following pages), takes four years to mature its first crop, and it is impossible to expect anyone to undertake such a venture on leased lands, with the prospect of having the result of four years out of five of his labor sold at public auction.

If Congress is unwilling to modify this, the only other course to pursue to increase the wealth of these islands is to sell the land outright and cease the leasing of it, which would enable a man with small capital to undertake enterprises which would otherwise be prohibited, and at the same time render the Territory much needed revenue in addition to its taxes.

Third. Section 80 of the organic act should be amended so that the governor may remove any officer appointed by him. This is a question of practical administration. The responsibility for a high standard of efficiency in the Territory is placed entirely upon the executive, and yet, under the organic act, he can not remove a prison inspector or the head of a department whose usefulness has ceased. To meet this situation precedents have now to be established of requiring resignations in advance, which can not be considered satisfactory.

Fourth. The return by Congress of the armory site for Territorial use.

Prior to annexation there existed a national guard of Hawaii, which had a rough armory building located on a piece of Government property just in the rear of the executive building—an ideal site, as its proximity rendered the guard of great assistance in case of insurrection or riot. At the time of annexation, owing to the needs of the War Department during the Spanish war, this site, with the buildings thereon, was taken by the War Department as an army reservation, part of which has since been used by the Quartermaster's Department.

It would greatly assist in fostering the national guard in Hawaii if this site could be turned over to the Territorial government for the erection of an armory and as a parade ground for the guard. There is available an appropriation by the Territory of \$75,000 for such a building. If favorable action can be taken by Congress on this matter early in its session this appropriation would still be available and it would be in conformity with the active interest the Federal Government is taking in raising the standard of the National Guard throughout the Union.

Fifth. That the organic act be so amended as to limit the session of the legislature to forty days, and provide at the same time for a yearly session; also requiring that each session of the legislature should make public a statement of its expenditures, and that the treasurer of the Territory be prohibited from paying out any money without proper and sufficient vouchers.

In accordance with the foregoing, amendment should be made to provide for annual rather than biennial appropriations. This change would give the people more of an opportunity to keep pace with the rapid changes that are taking place; would make for keener interest in local affairs, and in the end for a higher standard of citizenship. It would make the Government more elastic, and as the members would be elected for two years, every alternate year the session would

be composed of precisely the same members as at the preceding session. This would be wholesome in its effect, and result in legislation of a much higher class.

NEEDED APPROPRIATIONS.

First. Immediate provision should be made by Congress for the dredging of the harbor of Honolulu.

By reference to the article on commerce it will be seen that Honolulu stands well up among the ports of the United States of America in point of revenues collected and tonnage. Not only the future of the Territory but that of the whole Union will be affected by our commercial supremacy in the Pacific. This is not a case of dredging a harbor that is annually filled up with silt, but only that of increasing the depth to keep pace with the increased draft and length of the steamers crossing the Pacific. Since annexation the Territory, at its own expense, has dredged the harbor, and only last year cut the bar at the entrance to the harbor to a depth of 35 feet, and thus made provision for all vessels up to that time. Since then the Pacific Mail Company has put on its new boats, the *Mongolia* and *Manchuria*, which it now finds impossible to bring into the harbor. The delay and increased expense of lightering is a heavy tax on commerce, and it would seem as if this appropriation should be made in the interest of the through commerce that passes our doors.

Second. An appropriation should be made by Congress refunding to the Territory the following sums expended between June 14, 1900, and June 30, 1904, as shown by the books of the department of public works:

Harbor improvements and buoys	\$11, 481. 77
Light-houses, maintenance and repairs	31, 939. 99
Dredging Honolulu Bar and Harbor, exclusive of slips	131, 800. 31

Thus \$175,222.07 was expended by the Territory in the maintenance of a service which no other community in the Union has ever been expected to bear by direct taxation. The dredging of Honolulu Harbor was felt to be of vital necessity, and the maintenance of the light-houses was simply from the fact that the people of this Territory when told that Congress had made no provision for this service were humane enough to desire to protect the lives and property not only of American bottoms, but in the vessels of all nations of the world.

Third. Provision should be made for the erection of a suitable public building in Honolulu for a Federal court, internal-revenue office, and post-office. Failing such appropriation, some provision should be made to pay rent to the Territory for the space now occupied in its buildings by the Federal departments, as is done in other Territories.

Fourth. Provision should also be made for the erection of a suitable public building in Hilo, where the post-office, court-house, and internal-revenue office can be located together.

Fifth. For the making of a survey in anticipation of the construction of a breakwater at Hilo I recommend the appropriation of \$10,000.

Sixth. No greater good can be accomplished by Congress in any appropriation that is made by the Federal Government than to provide a fund of \$50,000, under the United States Marine-Hospital Service, for the study of and experiments in obtaining a cure for leprosy. From the beginning mankind has been cursed with this disease, which

has baffled all science, and is found not only in the Philippines, Porto Rico, and Hawaii, but in many of the States and cities of the mainland. Were such an attempt successful, not only would great credit accrue to the American people, but suffering and sorrow would be relieved throughout the world to an extent little realized.

Very respectfully,

G. R. CARTER,

Governor of the Territory of Hawaii.

The Honorable the SECRETARY OF THE INTERIOR.

DESCRIPTIONS AND REPORTS OF THE VARIOUS DEPARTMENTS OF THE GOVERNMENT OF HAWAII.

HEALTH CONDITIONS OF THE TERRITORY OF HAWAII.

By L. E. PINKHAM.

HEALTH AND TRANS-PACIFIC COMMERCE.

The Hawaiian Islands, particularly the island of Oahu and the port of Honolulu, occupy an unparalleled position as to the commerce and travel of the world. Through the single port of Honolulu, the only safe and available harbor in mid-Pacific, passes an enormous and rapidly increasing trans-Pacific commerce—not only oriental and colonial travel, but the ever-growing number of “around the world” travelers. The stay of these great steamers in port is short, but long enough to impose upon the Territorial government an unusual responsibility for not only local health, but that under no circumstances shall Honolulu become a mid-ocean center for the reception or dissemination of contagious or epidemic diseases.

The United States quarantine service is ever vigilant and effective, and is provided with excellent facilities, soon to be so improved as to be unexcelled anywhere. Passengers and employees, when once permitted to land, are subject to the care of local police and health authorities, so both the Federal and Territorial authorities have intimately related responsibilities.

No winter ever aids in stamping out disease. A never-ending summer renders our freedom from disease purely a matter of the continual application of sanitary and hygienic measures, at never-ending expense, vigilance, and responsibility.

It is only just that the legislative and executive powers of the United States Federal Government should recognize these facts and realize that this little community is meeting a burden and responsibility which no other place of its size in the world is called upon to face.

CONSISTENCE AND APPOINTMENTS.

The board of health for the Territory of Hawaii consists of seven members, four of whom are laymen, two physicians, and the attorney-general ex officio. The members of the said board are appointed by the governor, who also appoints the president, with the advice and consent of the senate of the Territory of Hawaii, and are commissioned for two years. All of the members of the said board serve without pay, except the president, whose salary is provided by the legislature. The president presides at the meetings of the board. In case of his

absence any member of the board may be chosen to preside over the meetings of the board. The board appoints its secretary, agents, and physicians, who receive such compensation for their services as is provided by the legislature.

The personnel of the board of health, as at present constituted, is: Chas. B. Cooper, M. D., W. H. Mays, M. D., L. Andrews, esq., attorney-general, M. P. Robinson, esq., F. C. Smith, esq., J. C. Lane, esq., L. E. Pinkham, esq., president.

DUTIES OF THE BOARD OF HEALTH.

The board has general charge, oversight, and care of public health, with the power of making such regulations respecting nuisances, sources of filth, causes of sickness, and interment of the dead as it shall judge necessary for the public health and safety.

The board is required to make, through its president, an annual report to the governor.

SCOPE OF THE BOARD.

The jurisdiction of the board of health is for the entire Territory of Hawaii, including segregation of lepers and the maintenance of the leper settlement on the island of Molokai.

GENERAL HEALTH.

The general health of the Territory for the past year has been good, there having occurred 2,654 deaths from a population of 154,001, an annual death rate of 17.55 per 1,000 inhabitants.

CARE OF THE INDIGENT SICK.

The indigent sick are cared for in the Queen's Hospital, Leahi Home for Incurables, and the Kapiolani Maternity Home, all quasi-public institutions. The financial reports of at least two of these institutions show that they have been an aid to the government in its duties to the indigent sick, and it is probable this same fact will continue, with decreased appropriations, revenues, and expense.

In eighteen months the Queen's Hospital has had an average of 76 indigent patients in its care at the beginning of each month. A new three-story brick building, with all modern improvements, will add greatly to the usefulness of this institution when completed.

In eighteen months the Leahi Home has had an average of 24 indigent patients in its care at the beginning of each month. This is a most desirable institution, and is remarkably situated, in a climatic sense, for incurables. It is believed its dry climate, perpetual summer, and protected situation render the cure of some cases of consumption possible. As nearly all of the cases are absolutely destitute of means, when recovery has proceeded so far they can no longer remain a public charge, they return to low and unfit nutrition, come back, and finally succumb to the disease.

Although the legislature provided a new dispensary, no means were furnished with which to run it. However, generous physicians tendered their free services and charitable citizens contributed funds,

so the benefits of the free dispensary are available to all the poor. Numerous and daily calls are made on its resources. Its office is open morning and afternoon.

INSANE ASYLUM.

The number of the insane has slightly increased during the year, being 177 against 166 a year ago. It is well to remark here that the outdoor life, uninterrupted through the year, and mild relaxing climate pertaining to our islands, affects the insane in a marked degree, rendering them remarkably more tractable and less violent than in a more rigorous climate. Of the several new buildings provided for in the loan act, the executive building has been completed. The large dormitories are designed by the architects to be of superior sanitary construction and to be practically fireproof. They will soon be under construction. Other improvements are completed or contemplated.

LEPROSY.

A spirit of contentment has prevailed over the settlement on Molokai during the past year, which it is hoped may continue for a long period. There have been no incidents that require comment. The particular effort of the year has been that of Dr. C. B. Cooper, as representative of the board of health, to bring the subject of the scientific study and treatment of leprosy for the benefit of the lepers of Hawaii forcibly to the attention of the United States Public Health and Marine-Hospital Service at the annual conference at Washington June 3, 1904. Doctor Cooper was chairman of the committee on leprosy. This effort was supplemented by the presentation of the subject to the American Medical Association at its annual meeting at Atlantic City.

Dr. J. T. McDonald, bacteriologist and pathologist of the board of health, places upon record additional evidence in support of an opinion expressed by him that no patient be sent to a segregated leper colony until the bacillus of leprosy, the sine qua non of the disease, has been unmistakably demonstrated to be present in such patient beyond the shadow of a doubt. During the past year, of the 97 patients sent to Molokai he has shown the bacillus to be present in every case prior to the patients being officially declared lepers by the examining board. Many suspects bear such slight and uncertain evidence of the disease that it would be a manifest injustice to declare them lepers from an ocular inspection alone, without the crucial test of microscopical diagnosis. Such demonstration is by no means an easy matter in this class of cases, many of them demanding the most careful and repeated tests; but additional experience in the work crystallizes his former opinion into a settled conviction that if a patient really has the disease, of whatever type, the skin, at least in some slight degree and on some part of the body, will show a lesion in which the bacillus may assuredly be found.

That the United States Government owes certain financial relief in equity toward our leper charges is believed by many, and the board of health issued a booklet in support of the contention which is hereby reprinted for preservation:

*LEPROSY IN THE HAWAIIAN ISLANDS—ITS HUMANITARIAN AND FINANCIAL BURDEN—
AN UNPARALLELED INSTANCE OF PUBLIC PHILANTHROPY.*

[Issued by the board of health of the Territory of Hawaii. Honolulu, H. T. 1904.]

[SEAL.]

LEPER SETTLEMENT.

The leper settlement is at Kalaupapa and Kalawao, island of Molokai. Molokai is very sparsely populated, entirely to one side of the trans-Pacific and interisland travel, and travelers and tourists are not brought into contact or sight of these unfortunates, and are not allowed to visit the settlement.

HAWAII'S REQUEST.

The citizens and officials of the Territory of Hawaii believe the financial burden of leprosy, and the fact that the United States Treasury is unduly profiting from these islands, justify them in asking—

First. Aid in the scientific study and treatment of leprosy, now beyond our means.

Second. Some direct or indirect adjustment of the financial arrangements of the Territory of Hawaii with the Federal Treasury, so that our humanitarian obligations may be properly carried on without the present undue strain.

CARE OF LEPEERS.

The lepers are segregated on the Island of Molokai, on a seagirt peninsula, containing 6,348 acres, of extraordinary scenic beauty, and shut out from communication with the outer world by practically impassable perpendicular cliffs, ranging from 2,000 to 4,000 feet high.

Communication by sea is under the exclusive control of the Territorial government.

The settlement is conducted on the lines of a very large and scattered village of private cottages and possessions for those physically able to maintain them. The cottages number over 450. There are hospitals for the helpless, and boys' and girls' homes. Churches, schools, and means of entertainment are provided. Athletic sports are common. Every possible means is used to remove the feeling arising from restraint. Medical attendance is constant. Members of both sexes of religious orders devote themselves to the care of these unfortunates. Every provision for support and comfort is made free of cost. No service is required of those able to work. Those working receive suitable money remuneration.

Leprosy in Hawaii, statistics as to nationalities affected, census of 1900 and 1904.

Race.	Popula- tion.	Lepers.	
		1900.	1904.
Native Hawaiian	37,635	951	764
Portuguese	15,675	10	17
English, German, etc.	5,893	10	12
Americans	7,283	5	5
Negroes, Malay, etc.	638	4	6
Chinese	25,762	34	47
Japanese	61,115	.....	5
Total	154,001	1,014	856

THE FINANCIAL BURDEN OF LEPROSY IN THE HAWAIIAN ISLANDS DISCLOSED BY
REPORTS OF THE BOARD OF HEALTH.

Expenditures of the board of health for the period of six years ending December 31, 1903.

Care of leprosy		\$876,888.86
Support, segregation, etc.	\$840,688.86	
Transportation, administration, etc.	36,200.00	
Ordinary expenditures		830,064.65
Administration	\$108,750.08	
Sanitation	182,961.99	
Quarantine service	35,042.29	
Government physicians and medicines	144,907.44	
Care of insane	187,507.55	
Hospitals	170,895.30	
Extraordinary expenditures (bubonic plague years, 1899-1900)		625,000.00
Total		2,331,953.51

MOSQUITO CAMPAIGN.

While not a board of health matter, the chairmanship of the citizens' mosquito committee devolves on the president of the board of health. The work of the past year has fully demonstrated the possibility of mitigating to a great extent this personal annoyance and vicious disseminator of disease. It is hoped citizens of Honolulu will enable us to continue the campaign with even much more persistence, for there has been a marked decrease in the presence of mosquitoes.

GENERAL HEALTH.

The general health of the population throughout the islands for the past year has been good. The duty of the board of health is to conserve public health, and the gentlemen of the board who devote so much of their time to public service without compensation are deserving of public thanks and recognition.

EDUCATION AND THE PUBLIC SCHOOLS.

By A. T. ATKINSON.

Education at the Hawaiian Islands began with adults rather than with the children. Between the years of 1823 and 1827 a peculiar system of schools sprang up, which spread rapidly over the islands to the remotest villages and flourished for about ten years. The high chiefs, with their immediate attendants, were the first pupils. Each chief sent the most proficient scholars in his retinue to his different lands as teachers, with a notice to his tenants to attend school. The eagerness of the people to acquire the novel and wonderful arts of reading and writing was intense, and almost the whole population of both sexes and all ages went to school. These primitive schools at the time of their highest prosperity reached the number of 900, attended by 52,000 pupils, mostly adults.

The first school laws were enacted in 1841 by the King and chiefs in council. School agents for each island, with a general superintendent over the whole, were to be appointed by the King in council. The parents in each village were to elect a school committee, who were to act in conjunction with the school agent in regard to the appointment and support of teachers and the erection of schoolhouses. Teachers were required to have certificates from the school agent. No person born since 1820, who could not read and write, could hold any office or even get married. Attendance at school was made compulsory on all children between the ages of 4 and 14. This has since been amended by substituting 6 for 4 and 15 for 14 years.

With regard to the average knowledge among Hawaiian pupils as compared to elsewhere, it can be stated without contradiction that practically all Hawaiians under 50 years of age can read and write their own language and that nearly all Hawaiians under 20 years of age can read and write English, and the same may be stated of the Portuguese population.

It may be interesting to note that the number of children within school age attending school in 1880 was 70 per cent, in 1890 was 81 per cent, and in 1900 was 96 per cent. Of Hawaiians, 98 per cent attended school within school age; part Hawaiians, 99; Hawaiian born

foreigners, 94; Portuguese, 85; Japanese, 94; Chinese, 92; and of course all those who are American, British, French, and German extraction attended school. There are few places upon the face of the civilized globe where so many children of school age attended school for the full session of the year. Our year begins on September 1, and closes on June 30, and up to the present time, for a period of sixty-four years, there has never been a break in the constant continuation of the schools of the Hawaiian Islands, whether under the Monarchy, under the Independent Republic, or, at the present time, as a Territory of the United States. This is a record which is phenomenal, and greatly to the credit of the various administrations which have had charge of the board and later of the department.

On June 30, 1903, the total enrollment of all classes of schools in the Territory was 18,415. The close of the present period, June 30, 1904, shows an enrollment of 19,299. This is a gain of 884 pupils for the year. Of these, 10,457 were males and 8,842 were females. The enrollment of the public schools has advanced from 13,793 to 14,467, an increase of 674; that of the private schools from 4,622 to 4,832, an increase of 210. Last year there was an increase of 604 in the enrollment of the public schools and of 293 in the private schools. Thus the private schools have fallen off in comparison with the public schools.

There are in all 204 schools in the Territory, of which 147 are public schools supported by public money, and 57 are private schools supported by trust funds, rents, private contributions, and fees. At last report there were 144 public schools, which shows an increase of 3, while the private schools were listed at 59 and are now listed at 57. All the public schools of the Territory from the high school and normal down to the smallest country school are free and are open to all population, regardless of color or race. Every pupil who enters the Territorial public schools stands upon exactly the same plane. No race and no color is considered. The American, the European sits with the Malay, the Chinese, and the Japanese, and their amusements on the playgrounds are conducted upon the same level plane. The schools of the Territory are making the population come to a level. It is an amalgamation of races which probably is not seen in any place outside of Hawaii.

Of the teachers of the Territory in active employment during the last year, there were 646 as against 633 the previous year. Of these 189 were males and 457 were females. The public schools employ 399 teachers and the private schools 247 teachers. This gives an increase of 13 teachers in the public schools and no increase whatever in the private schools. This gives an average of 36 pupils to each public school teacher, and 19 pupils to every teacher in the private schools. The following table gives all statistics upon which this is based:

Number of schools, teachers, and pupils in the Territory of Hawaii.

	Schools.	Teachers.			Pupils.		
		Male.	Female.	Total.	Male.	Female.	Total.
Public schools.....	147	107	292	399	7,947	6,520	14,467
Private schools.....	57	82	165	247	2,510	2,322	4,832
Total.....	204	189	457	646	10,457	8,842	19,299

NATIONALITIES OF PUPILS.

It must be understood that in classing the nationalities of pupils or in dividing them by nationalities a very large number of them who are not so classed should be classed as Americans, it having been a custom in the islands to divide the population according to descent, even though the birth had occurred on the islands. Thus the third or fourth generation of British residents of the islands for that length of time are still classed as British, though the last generation occurring after annexation would make them American citizens. Of course, all Hawaiians and part Hawaiians are American citizens, and a very large number of the young Asiatics have the same claim.

There is a tendency to complain because Asiatics are educated in our public schools, and the complaint would be justifiable if we were educating those who were not, in the mass, to be voters in the future. The bulk of the Asiatics that are being educated in our public schools are those who will become voters in the future. It has been the aim of the department to get rid of such Asiatics in the schools as simply go there to learn English at an advanced age, say 16 to 17, and the success of the department in this direction has been satisfactory. In some cases teachers like to take in the elder Asiatics because they are very amiable and make good students, but this has been very sternly repressed. It is necessary that future voters should be educated and trained by American methods; otherwise they will be unable to vote intelligently. What we have to do here is what is being done on the mainland, and that is, assimilating a heterogeneous population and making Americans of them.

The number of Hawaiians of unmixed blood in the schools has remained practically stationary, though there is a slight decrease. In 1902 there were 4,903; in the report for 1903 the number was 4,893; the present year the number is 4,877, only a decrease of 26 during the two years. On the other hand, there has been a considerable increase in the number of part Hawaiians; that is, children whose parentage is partly Hawaiian and partly some other nationality. Last year they were reported as 3,018; this year they are reported as 3,234, an increase of 216. In course of time the Hawaiians of mixed blood will evidently equal, and perhaps even exceed, the Hawaiians of unmixed blood. Adding the part Hawaiians and the Hawaiians of unmixed blood together we have now in school 8,111 pupils of Hawaiian parentage, as against 7,911 in school in the year 1903.

The Portuguese children in school very nearly equal the number of Hawaiians of unmixed blood in school, the total number at present being 4,345. All the males of these have been born in the Territory and, as they become of age, will become voters. Last year there were 4,243 Portuguese children in school; thus the increase is 102 during the year. In 1880 there were 55 Portuguese, in 1890 there were 813, and in 1900 there were 3,829. In the course of the last four years there has been an increase of 534, and this in spite of the fact that a considerable number of Portuguese have left the Territory to go to the mainland. It does not, therefore, seem as if there was going to be much of a decrease in the Portuguese population.

There has been a considerable increase in the attendance of Japanese. Last year there were 2,521 in school, this year 2,920 are reported. This shows an advance of 399 during the year. The Chinese pupils have

only very slightly increased, the figures being 1,650 for the present year and 1,554 last year, making in all 96 increase. The total Asiatic pupils in our schools amount to 4,570. The total Hawaiians, Americans, and Europeans amount to 14,729.

If we take the matter up on different lines and eliminate all the pupils of Hawaiian blood, viz, 8,111, we have a residue of American and European blood 44 per cent in excess of those of Asiatic blood, and this with the Hawaiian blood gives an overwhelming majority against the Asiatic blood, with the other blood constantly becoming stronger. This Territory, as far as its school statistics show, is not becoming Asiaticized. The table annexed gives details of information.

Nationality of pupils attending schools in the Territory of Hawaii.

	Public.	Private.	Total.
Hawaiian	4, 121	756	4, 877
Part Hawaiian	2, 253	981	3, 234
American	560	317	877
British	129	76	205
German	167	154	321
Portuguese	2, 937	1, 408	4, 345
Scandinavian	58	67	125
Japanese	2, 483	437	2, 920
Chinese	1, 192	458	1, 650
Porto Rican	446	110	556
Other foreigners	121	68	189
Total	14, 467	4, 832	19, 299

TERRITORIAL TEACHERS.

The year ending June 30, 1904, shows that there were 646 teachers employed in the services of both public and private schools—this against 633 engaged in education in 1903. Of these, 399 are employed in the public schools and 247 in the private schools. According to the last report, 386 teachers were employed in the public schools, and this gives an increase of 13 for the public schools and no increase for the private schools. It may be well to point out that many of the teachers employed in the public schools are those who have been trained in our normal school, and that as time goes on it is the earnest desire of the department that all who are employed in public schools should come from the ranks of those who attended the Territorial schools. From the point of view of the department, those who have been educated in the schools in the Territory and who have thereafter, either by attending the normal school established in Honolulu or by attending other institutions of instruction upon the mainland, fitted themselves for positions in their own islands, are the persons who should take charge of our schools. It may be noted that the number of American teachers, which was 327 on June 30, 1903, is now 314. The explanation of this is that the young men and young women who have been educated in our schools have now reached a position in which they can take charge of very much more important institutions than they used to be able to do. This certainly shows the effect of the education that the department has been striving to give to the Territory. Thus it will be seen that in 1903 there were 78 Hawaiians of pure blood teaching school. To-day there are 83. At the same date there were 72 part Hawaiians and to-day there are 86, and this goes to show that the work of the department is being concentrated upon the people of the islands, and

that the people of the islands are responding to the effort that the department makes.

It is proper to say here that there is a regular system of certificates which are gained by examinations, and that we have a regular set of inspectors who view the work done by the teachers and who report weekly to the superintendent and board of commissioners.

The following table shows the number of teachers employed both in the public and private schools, and it can be noted that the department of education employs more Hawaiians, part Hawaiians, and Portuguese than the private schools do, the numbers being, public schools, Hawaiians, 61; private schools, Hawaiians 22; public schools, part Hawaiians, 73; private schools, part Hawaiians, 13; Portuguese, public schools, 23; private schools, 11; Japanese, public schools, none; private schools, 9; Chinese, public schools, 3; private schools, 13. The 3 Chinese are citizens who have been born and educated here.

Comparative nationality of teachers.

	Public schools.	Private schools.	Total.
Hawaiian	61	22	83
Part Hawaiian	73	13	86
American	179	135	314
British	43	16	59
German	7	8	15
Portuguese	23	11	34
Scandinavian	7	7	14
Japanese .....	.....	9	9
Chinese	3	13	16
Other foreigners	3	13	16
Total	399	247	646

DISTRIBUTION OF SCHOOLS, TEACHERS, AND PUPILS.

The island of Hawaii, which is the largest of this group, has the largest number of schools, though it has not the largest enrollment. On Hawaii there are 57 public schools and 10 private schools, the total enrollment being 5,816, of which 4,728 are in public schools and 1,078 in private schools. There are 132 teachers engaged in the public schools and 36 in the private schools. On Oahu there are 35 public schools and 30 private schools, the former taught by 149 teachers and the latter by 108. The total enrollment for the island of Oahu is 7,987, of which 5,176 pupils are in public schools and 2,811 are in private schools. The large number of schools on Hawaii can be explained by the fact that many of them are in isolated villages, where the population is small and where the attendance falls short, in some cases, of 20 children. It has been the policy of the department to keep open schools where the number does not fall below 12. On the other hand, on the island of Oahu the population is concentrated and there are no schools which fall below from 30 to 40 children, while in Honolulu, which is the chief center of population, there are two schools which number in the neighborhood of 600 each and another which counts 450 or more.

The number of private schools on the island of Oahu is very much larger than upon any other of the islands. The reason for this is that Honolulu is the headquarters for all denominational schools, as well as schools of the eleemosynary character. Out of the 57 private schools of the Hawaiian Islands, 30 are situated in Honolulu. The denomina-

tional schools are carried on by the Roman Catholics, Episcopalians, the German Lutherans, and others. The Roman Catholic schools, which are quite large, are conducted by the Sisters of the Sacred Heart for girls and the Brothers of Mary for the boys. The Episcopalians also make a sex distinction and have a school for boys, while that for girls is conducted at St. Andrew's Priory. The bequest of the late chiefess Bernice Pauahi Bishop created the Kamehameha schools, and here also there is a sex distinction, there being a Kamehameha school for boys and another for girls. The plan of the department of education, on the other hand, is to educate the sexes together, and it is asserted that as far as these schools are concerned this is by far the best method. At Oahu College and its preparatory annex the plan of coeducation of sexes is carried out even in the boarding department, so that this may qualify my remarks made above, confirming my belief in coeducation even in boarding schools.

There are a few private schools, but they are few, which are conducted for profit. The general character of the public schools on the islands is so high that it makes it hard for a teacher working purely for profit to carry on a private school.

AGES OF CHILDREN.

The school laws of the Territory demand that all children between the ages of 6 and 15 must attend some school. Between these ages at the present time there are 16,897 children in school, as against 16,218 in 1903 and 15,525 in 1902. There are also 1,182 children under 6 years of age who are attending, for the most part, kindergartens supported by voluntary contributions. Of these a considerable number are Asiatics. Of course, the attendance of these 1,182 children is entirely voluntary, whereas the attendance of the 16,897 children between the ages of 6 and 15 is obligatory, and nonattendance can be punished by legal methods. Of those above 15 years of age there are 1,220 in school, as against 1,116 reported last year. Of these, 648 are in private schools and 572 are in public schools. The Honolulu high school, the normal school, and the Lahainaluna agricultural school chiefly provide for those who are accounted for in the public-schools record. The elder pupils of the private schools will be found at Oahu College, St. Louis College, Kamehameha schools, and other establishments of the same class. These figures show that almost the whole of the school population, according to the laws of the Territory, is being instructed, and that very few are growing up in this Territory who will not have a fair knowledge of oral and written English, together with a fair amount of instruction in the elements of arithmetic. Besides this, the pupils cultivate a general knowledge of current events, as discussed in the schools, and the hand and eye are trained as well as the mind.

Ages of all pupils in all schools of the Territory of Hawaii.

PUBLIC SCHOOLS.

	Under 6.	6 to 8.	8 to 15.	Above 15.
Boys	213	2,392	5,049	291
Girls	145	1,983	4,113	281
Total.....	358	4,375	9,162	572

Ages of all pupils in all schools of the Territory of Hawaii—Continued.

PRIVATE SCHOOLS.

	Under 6.	6 to 15.	Above 15.
Boys.....	399	1,709	402
Girls.....	425	1,651	246
Total.....	824	3,360	648

TOTAL IN PUBLIC AND PRIVATE SCHOOLS.

Boys.....	612	9,150	693
Girls.....	570	7,747	527
Total.....	1,182	16,897	1,220

MANUAL WORK.

Upon this branch of education the superintendent and the commissioners are very eager to make improvements. Some years ago the matter was almost entirely neglected. Gradually, however, it has been possible to interest both the inspectors and teachers in this most important portion of the public school education. Of course, there are those who still retain the idea that education simply means the cultivation of the memory and other attributes of the brain, but from the point of view of Superintendent Atkinson and his colleagues, true education consists not only in cultivating those attributes but in making the hand follow the orders of the brain. The work of our normal school has greatly facilitated an improvement in manual training in the schools. The young teachers who go forth, both male and female, are all capable of giving instruction in sewing, knife work, weaving, agriculture, and drawing. Every school has its sewing chest. Every school has its agricultural implements; and in those places where there are minor industries peculiar to that district, the department strives as much as possible to have instruction given in that particular industry. Of course, in the larger schools it is possible to carry out these plans better than in the smaller schools, but there is not a school in the Territory under government control which does not instruct in some portion of manual training. Among the very small schools there is nothing done except agricultural work. In the larger schools everything is carried out, and in some of them even printing, leather work, bookbinding, and other mechanical arts have been encouraged and have met with considerable success.

Number of pupils in sewing, agriculture, manual work, and drawing in the public schools.

	Sewing.	Knife work.	Agriculture.	Lauhala and bamboo work.	Mat weaving.	Other manual training.	Drawing
Hawaii.....	1,754	58	1,783	125	2,835	43	3,154
Mauī.....	1,043	49	717	146	1,693	15	1,636
Molokai.....	97	8	91	39	86	20	164
Oahu.....	2,696	130	3,009	134	4,426	144	4,555
Kauai and Niihau.....	823	31	573	22	28	115	1,403
Total.....	6,413	276	6,173	466	9,068	337	10,902

SCHOOLHOUSES AND TEACHERS' COTTAGES.

Under the loan fund bill the department has been enabled to make a large number of improvements in the school buildings. Many of these were in a very dilapidated state and had to be removed in order to give the proper accommodation for the ever increasing number of pupils in the Territory. In several cases the department was under the expense of hiring houses to be used as schoolrooms and also hiring cottages for the teachers.

The conditions in the Territory of Hawaii with regard to the residences are peculiar. In the outer districts it is in many cases practically impossible for teachers either to find domiciliary accommodations or board. Thus the department has to build its own cottages. In the past there have been many cases where able and desirable teachers were perfectly prepared to take up the work of instruction, even though they were isolated from many of the desirable things of life, but they found it was absolutely impossible to obtain even house room or board. Consequently their services were lost to the department. In Honolulu—which is a modern town—in Hilo and in Wailuku there is not the necessity of supplying teachers with accommodations and they are not so supplied, but in the country districts it has been absolutely imperative. It must be thoroughly plain to anyone who considers the matter for a moment that at the plantation schools it is not desirable that the teacher should be dependent for his house room upon the plantation authorities, nor is it desirable that a teacher who is to keep the dignity of his position should be housed in the same way the laborers are. This accounts for the number of teachers' cottages which have been recently erected.

The main schools which have been or are going to be erected under the loan act fund are, first, the Royal School, a twenty-room building, which will cost \$41,915. This will probably be completed by December. An additional building to the industrial school at Waialeale to accommodate 50 boys has been erected at a cost of \$10,185. At Wailuku, on the island of Maui, a school which will grow into the high school of that island is in course of erection and will cost in the neighborhood of \$23,000. A new normal school is to be erected in Honolulu, but has not yet been advertised, because of the difficulty of obtaining a site. This site has now been settled upon and the building will be commenced probably in September. Bids for the erection of schoolrooms and dormitories for the agricultural school at Lahainaluna, island of Maui, are now published and the work upon the establishment will probably be commenced early in September. A building to contain the commercial department of the high school has been erected upon the high school grounds, which are of considerable extent. It may be stated that the present high school is being conducted in the mansion which was erected by Princess Ruth and which afterwards reverted to the high chiefess Bernice Pauahi Bishop, and from her estate it was purchased for its present purpose. The building is a very handsome one and has very expensive decorations in the interior. The grounds are well planted and the whole situation is very picturesque. On the same grounds a grammar annex to the high school has been constructed, containing five rooms. Another important school which has been built is that at Lihue, island of Kauai, with six rooms.

LAHAINALUNA.

Lahainaluna was founded in September, 1831. The land upon which it is situated had been granted by chiefs to the school. It is the oldest educational establishment in the Hawaiian Islands. For a long time it was the leading educational light for Hawaii. The first newspaper ever published in the Pacific Ocean was issued from the printing press which was set up there. Later a bookbindery was added and a number of text-books in the Hawaiian language were published from this institution. After a long career of success the institution, from some cause or other, began to fail, and for the last twenty years there has been a lack of vitality about the establishment. Causes for this may be traced to the change in our school system, to the establishment of the Kamehameha schools, to St. Louis College, and a lack of proper funds for carrying on the school.

At the beginning of this school year the department of public instruction undertook a complete reorganization of Lahainaluna. Arrangements were made for erecting proper and convenient buildings and an entirely new set of instructors was obtained. The aim of the institution at the present time is to be an agricultural school. A carpenter shop, a blacksmith shop, and a modern printing outfit have been supplied. Draft animals have been purchased and a considerable quantity of land has been put into cultivation. But for the delay in erecting the new buildings the institution could have very many more pupils than it supports at present. There is every hope, however, that during the coming year a complete success may be made of the place. A thoroughly revised curriculum will be adopted at the commencement of the year. There have been some disputes about water and land between the plantation and the school authorities, but these are now in process of adjustment, and that will give a clear field for the future.

WAIALEE INDUSTRIAL SCHOOL FOR BOYS.

This institution is situated on the northern side of the Island of Oahu, close to the railroad. It is distant about 70 miles from Honolulu. On the 13th of May, 1903, the boys from the Honolulu Reformatory School were moved there. At that time there was only one building and no cultivation. During this current year another dormitory building together with a dining room and other conveniences have been erected and also a cottage for the superintendent. These were built by contract. The boys have erected a large convenient barn, a blacksmith shop, a carpenter shop, a poi house and a house for the gasoline engine. There are now 5 acres of sweet potatoes, 500 banana plants, half an acre of sorghum, and about 2 acres devoted to minor vegetables, beans, tomatoes, onions, carrots, beets, watermelons, squash, etc. The whole lower part of the estate below the bluff has been fenced in, this also being the work of the boys. A small dairy has been established in which there are 9 cows, 1 bull, and 3 calves. Two horses and 2 mules are used in plowing. There is a growing herd of pigs, and a considerable number of well-bred fowls and ducks. The discipline of the institution is very good and a number of boys seems thoroughly reformed. Indeed, there are several who have been discharged who are earning good wages and behaving themselves. There is a regular system of parole by which boys whose conduct is

thoroughly satisfactory are allowed to leave before their terms are up, they reporting monthly either at the department or to the school agent of the various districts. If the conduct of the paroled boys is unsatisfactory they are immediately returned to the school. There are now 110 boys on the books of the institution.

GIRLS' INDUSTRIAL SCHOOL.

The girls' industrial school has been established in the old boys' reformatory school building. At the present time there are 11 inmates. In organizing an institution of this kind there are always difficulties to be met, but these have been met and there seems every probability that before the next year closes the institution will be doing the reformatory work which we so much desire. The girls come from the lowest and most vicious classes and are a harder problem to reform than the boys. They are instructed in housework, sewing, washing, ironing, cooking, and lace making. After they have been in the institution a few months it is noticeable that their physical condition is very much improved.

PUBLIC LANDS AND LAND LAWS.

By J. W. PRATT.

The original group of the Hawaiian Islands consisted of Hawaii, Maui, Molokai, Kahoolawe, Lanai, Oahu, Kauai, and Niihau, together with a number of very small adjacent points of land which are known as separate islands, but which amount to nothing unless taken in conjunction with the larger lands. Within late years other small islands in the chain extending to the north and west from the main group have become, by annexation, a part of what is now known as the Territory of Hawaii. The main group is situated between 19° and 23° north of the equator, and is about 2,000 miles west of the Pacific coast of America. This is exactly the same position north held by Cuba.

The combined area of the Hawaiian Islands is about 6,500 square miles, divided as follows as to the larger islands:

	Sq. miles.
Hawaii	4,015
Maui	728
Oahu	600
Kauai	544
Molokai	261
Lanai	135
Niihau	97
Kahoolawe	69

Our largest island, Hawaii, is about the size of the State of Connecticut, and the combined group about equals the area of New Jersey.

LAND OWNERSHIP AND LAND LAWS.

Prior to 1839 absolute ownership and control of all lands vested in the King. In 1839 and 1840 an attempt was made to pass a law that would give some title to occupants of lands, but the law appears to have proved a failure, for conditions remained practically the same

until 1846, when a law was passed authorizing the organizing of a commission to take evidence as to occupancy and to award, to those entitled to receive the same, the lands in fee. This division, or *mahele*, of the lands took place March 7, 1848, at which time a portion of the land was reserved by the King as a private property of the Crown, a portion allotted to the chiefs and a portion to the people. On the 8th day of March, 1848, the King conveyed a large portion of all the lands, that he had retained at the division of the previous day, to the Government. The commission awarded ownership on over 11,000 claims, mostly of very small area. The result of this division of all the lands was about as follows:

	Acres.
The Crown	1, 100, 000
The Government.....	1, 413, 000
The chiefs and the people	1, 647, 000
A total	4, 160, 000

This ownership applied mostly to Hawaiians, as by the laws of 1850 and 1854 foreigners were practically prohibited from ownership in lands, except under special conditions and circumstances.

Immediately following the division, or *mahele*, the Government commenced to sell and lease its lands in large tracts in order to replenish an empty treasury. Naturally the best lands went first, as time passed the portions remaining being of the inferior class. The value of the remnant has decreased until at the present time the government lands are great in area but of the smallest value, tens of thousands of acres being barren lava, upon which not a bit of vegetation has grown from fifty to one hundred years. The result is that by far the largest portion of the lands depended on for sites for homesteads and revenue-producing purposes is now the land formerly known as the Crown lands.

By an act of the legislature approved January 3, 1865, the Crown lands were rendered inalienable, and the commissioners were allowed to lease the lands for periods of not more than thirty years. This act was framed apparently to safeguard the revenues from the land and to prevent the commissioners from selling them off in any sized tracts and at any price, as the Government lands were sold.

By an act of 1874 the minister of the interior was allowed to sell, lease, or otherwise dispose of Government lands in such manner as he might deem best. This act was amended in 1876 and 1878 by making it mandatory to sell or lease only at public auction, after advertising for at least thirty days.

By an act approved August 29, 1884, the minister of the interior was allowed to issue five-year homestead leases on lots of not less than 2 and not more than 20 acres, the lands to be appraised and the annual rental to be equal to 10 per cent of the appraised value of the land; residence and fencing required and payment of principal within five years, failing which the lands reverted to the Government.

By an act approved September 6, 1888, the above act was amended to allow lands in Kahikinui and Kipahulu, Maui, and in Kona and Puna, Hawaii, to be leased under the homestead act in tracts of not more than 100 acres. This act was again amended by act of November 14, 1890, and the term was made ten years and the annual rental reduced to 5 per cent of the appraised value.

The present land law was enacted by the legislature of the Republic of Hawaii on the 14th day of August, 1895, and with slight amendments continued in force by an act of Congress on the 27th day of April, 1900, and approved on the 30th day of April, 1900, by President McKinley. The following is a digest of our present land law.

DIGEST OF THE LAND ACT OF 1895.

[As continued in force by an act entitled "An act to provide a government for the Territory of Hawaii" passed by the Fifty-sixth Congress of the United States of America, on the 27th day of April, and approved on the 30th day of April, A. D. 1900.]

(With reference to unoccupied lands.)

The land act of 1895, as aforesaid, having for its special object the settlement and cultivation of the government agricultural and pastoral land, vested the control and management of public lands in a commissioner.

For the purposes of the act, the Territory of Hawaii is divided into six land districts, as follows:

- First. Hilo and Puna, on the Island of Hawaii.
- Second. Hamakua and Kohala, on the Island of Hawaii.
- Third. Kona and Kau, on the Island of Hawaii.
- Fourth. The islands of Maui, Molokai, Lanai, and Kahoolawe.
- Fifth. The island of Oahu.
- Sixth. The island of Kauai.

The commissioner is represented by a subagent in each district.

Public lands for the purposes of this act are classified as follows:

1. *Agricultural lands*.—First class: Land suitable for the cultivation of fruit, coffee, sugar, or other perennial crops, with or without irrigation.

Second class: Land suitable for the cultivation of annual crops only.

Third class: Wet lands such as kalo and rice lands.

2. *Pastoral land*.—First class: Land not in the description of agricultural land, but capable of carrying live stock the year through.

Second class: Land capable of carrying live stock only part of the year, or otherwise inferior to first-class pastoral land.

3. *Pastoral-agricultural land*.—Land adapted in part for pasturage and in part for cultivation.

4. *Forest land*.—Land producing forest trees but unsuitable for cultivation.

5. *Waste land*.—Land not included in the other classes.

The act provided three principal methods for the acquirement of public lands, under systems known as (1) homestead lease, (2) right of purchase lease, (3) cash freehold.

GENERAL QUALIFICATIONS OF APPLICANTS.

Applicants for land under systems named above must be over 18 years of age, must be citizens by birth or naturalization or have received a certificate of declaration of intention to become a citizen, be under no civil disability for any offense, nor delinquent in the payment of taxes. Special qualifications are named under the respective systems.

HOMESTEAD-LEASE SYSTEM.

The homestead-lease system permits the acquirement of public land by qualified persons without other payments than a fee of \$2 upon application and a fee of \$5 upon issuance of homestead lease.

The limit of area in the different classes of land which may be acquired under homestead lease is 8 acres first-class agricultural land; 16 acres second-class agricultural land; 1 acre wet (rice or kalo) land; 30 acres first-class pastoral land; 60 acres second-class pastoral land; 45 acres pastoral-agricultural land.

SPECIAL QUALIFICATIONS OF APPLICANTS FOR HOMESTEAD LEASE.

Any person having the general qualifications (as to citizenship, etc.), who is not the owner in his own right of any land in the Territory of Hawaii, other than "wet land" (rice, taro, etc.), and who is not an applicant for other land under this act may apply under this part of the act, and such application may cover one lot of wet land in addition to other land, if reasonably near. Husband and wife may not both be applicants.

Applications must be made in person at the office of subagents of the district, accompanied by sworn declaration of qualifications, and a fee of \$2.

CERTIFICATE OF OCCUPATION.

The successful applicant receives a certificate of occupation which entitles him to occupy the described premises and to receive a homestead lease for nine hundred and ninety-nine years, if conditions of certificate of occupation have been fulfilled, the conditions being—

That the occupier shall, before the end of two years, build a dwelling house and reside on the premises. He shall maintain his home on the premises from and after the end of two years from date of certificate. He shall before the end of six years from date of certificate have in cultivation not less than 10 per cent of the land, or have in cultivation 5 per cent of the land and, in good growing condition, not less than ten timber, shade, or fruit trees per acre on agricultural land, or if pastoral land, fence the same within six years.

He shall pay the taxes assessed upon the premises within sixty days after the same are delinquent.

He shall perform any conditions of the certificate for the planting or protection of trees, or preservation or destruction of vegetable pests that may be on the premises.

CONDITIONS OF HOMESTEAD LEASE.

The lessee or his successors must maintain his home on the leased premises, must pay the taxes assessed upon the premises within sixty days after the same are delinquent, and perform any condition of the lease relating to protection or planting of trees, or destruction and prevention of vegetable pests.

Lands held under a certificate of occupation or homestead lease are liable to taxation as estates in fee.

In case of the death of an occupier or lessee his interests, notwithstanding any devise or bequest, shall vest in his relations, in the order prescribed in the act, the widow or widower, being first in order, then the children, etc.

Certificate of occupation or homestead lease, or any interest thereunder, is not assignable by way of mortgage nor is the same subject to attachment, levy or sale on any process issuing from the courts of the country. Neither the whole nor any portion of the premises may be sublet.

Surrender may be made to the government by an occupier or lessee having the whole interest if all conditions to date of surrender have been fulfilled, and the person so surrendering is entitled to receive from the government the value of permanent improvement, whenever the same is received by the government from a new tenant.

RIGHT OF PURCHASE LEASES.

Right of purchase leases, for the term of twenty-one years, may be issued to qualified applicants, with the privilege to the lessee of purchasing at the end of three years and upon the fulfillment of special conditions.

QUALIFICATION OF APPLICANTS.

Any person who is over 18 years of age, who is a citizen by birth or naturalization of the United States, or who has received a certificate of declaration of intention to become a citizen, who is under no civil disability for any offense, who is not delinquent in the payment of taxes, and who does not own any agricultural or pastoral lands, in the Territory of Hawaii, may apply for right of purchase lease, the limit of areas which may be acquired being 100 acres first-class agricultural land, 200 acres second-class agricultural land, 2 acres wet (rice or taro) land, 600 acres first-class pastoral land, 1,200 acres second-class pastoral land, 400 acres mixed agricultural and pastoral land.

Any qualified person, owning less than the respective amounts stated in the foregoing list, and which is not subject to residence conditions, may acquire additional land of the classes already held by him, but so that his aggregate holding shall not be in excess of the limit named; or if desiring additional land of another class may acquire the same according to ratio established between the various classes.

Husband and wife may not both be applicants for right of purchase leases.

Application must be made in person at the office of subagent of the district, and must be accompanied by a fee equal to six months' rent of premises, fee to be credited on account of rent, if application is successful. In case of more than one application for same lot the first application takes precedence.

CONDITIONS OF RIGHT OF PURCHASE LEASE.

Term: Twenty-one years.

Rental: Eight per cent on the appraised value given in lease, payable semiannually.

The lessee must from the end of the first to the end of the fifth year continuously maintain his home on the leased premises.

The lessee must have in cultivation at the end of three years 5 per cent and at the end of five years 10 per cent of his holdings, and maintain on agricultural land an average of ten trees to the acre.

Pastoral land must be fenced.

Interest in right of purchase lease is not assignable without written consent of the commissioner of public lands, but the lease may be surrendered to the government.

In case of forfeiture or surrender of right of purchase lease, reappraisement is made of the land and of permanent improvements thereon, and if the land is again disposed of, the incoming tenant shall pay for such permanent improvements and the amount when so received by the government shall be paid to the surrendering lessee.

CONDITIONS UNDER WHICH PURCHASE MAY BE MADE.

At any time after third year of leasehold term, the lessee is entitled to a land patent giving fee simple title, upon his payment of the appraised value set forth in lease, if he has reduced to cultivation 25 per cent of his leased premises and has substantially performed all other conditions of his lease.

CASH FREEHOLDS.

Cash freehold lots are sold at auction to the highest qualified bidder, at appraised value as upset price.

The qualifications of applicant for cash freeholds and the areas of land which may be acquired are the same as those under right-of-purchase system.

APPLICATIONS.

Applications must be made to subagent of district in writing, with sworn declaration as to qualifications and a fee of 10 per cent of appraised value of lot, which fee is forfeited if applicant declines to take the premises at the appraised value, and is credited to him if he becomes the purchaser of the lot. If such applicant, however, is outbid, his fee is returned to him.

If two or more applications are made and there is no bid above the upset price, the first application takes precedence.

The purchaser at auction sale must pay immediately thereafter one-fourth of purchase price and thereupon receive a "freehold agreement."

CONDITIONS OF FREEHOLD AGREEMENT.

The freeholder shall pay the balance of purchase price in equal installments in one, two, and three years, with interest at 6 per cent, but may pay any installment before it is due, and stop corresponding interest.

Twenty-five per cent of agricultural land must be cultivated and pastoral fenced before the end of third year.

Freeholder must maintain his home on the premises from end of first to end of third year.

He may not assign or sublet without consent of the commissioner of public lands.

He must allow agents of the Territory of Hawaii and the United States to enter and examine the premises.

He must pay all taxes that may be due upon the premises.

If all conditions are fulfilled, he is entitled at end of three years to patent giving fee-simple title.

In case of forfeiture or surrender, the land and permanent improvements are reappraised separately, and the value of such improvements, when received by government from new tenant or freeholder, will be paid to surrendering freeholder.

SETTLEMENT ASSOCIATIONS.

Six or more qualified persons may form a "settlement association" and apply for holding in one block.

The provisions for cash freehold and right-of-purchase leases apply to the settlement of such blocks.

Any lot in such block which may be forfeited or surrendered or which is not taken up by any member of the settlement association within three months, shall be open to any qualified applicants.

Disputes, disagreements, or misunderstandings between the parties to certificate of occupation, homestead lease, right-of-purchase lease, or cash freehold and relating thereto which can not be amicably settled shall be submitted to the circuit judge in whose jurisdiction the premises are situated, and his decision shall be final, subject only to appeal to supreme court.

CASH SALES AND SPECIAL AGREEMENTS.

With consent of the governor public lands not under lease may be sold in parcels of not over 1,000 acres at public auction for cash, and upon such sale and payment of full consideration a land patent will issue.

Parcels of land of not over 600 acres may, with consent of governor, be sold at public auction upon part credit and part cash, and upon such terms and conditions of improvement, residence, etc., as may be imposed.

Upon fulfillment of all conditions a land patent will issue.

GENERAL LEASES.

General leases of public lands may be made for a term not exceeding five years for agricultural land and twenty-one years for pastoral land.

Such leases are sold at public auction and require rent in advance quarterly, semi-annually, or annually.

The conditions of general leases are made at discretion of the commissioner and may be made for any class of public lands.

The Crown-land leases in many cases were evidently used for political or other purposes. Large tracts of valuable land were and are to-day under lease at mere nominal rentals, such as no sane person would accept as the actual rental of the land. As an example, 500 acres of land in and adjoining the city of Honolulu is under lease to expire in 1912. The Crown received and the government now receives for this land the sum of \$100 per annum. The lessee sublets the land at an annual net profit of about \$12,000 per annum. There are 2,800 acres on Kauai for which the government receives \$800 per annum that clear the lessee \$10,000 per annum net. This man is a nonresident and subleases. Many other instances of like kind exist.

The following, taken from the 1894 report of C. P. Iaukea, the former Crown commissioner, shows how little business capacity was used in leasing these Crown lands:

By reference to the rent roll it will be seen that many of the lands, more particularly the valuable ones, are held for long terms of years, and in a number of instances the rentals, compared with the present market or ruling rates, are exceedingly low. The following statement will illustrate this:

Name of tract.	Locality.	Area.	Annual rental.	Remarks.
Kapapala	Kau	172, 780	\$1, 200. 00	Excellent grazing land.
Waiohinu	do	15, 210	600. 00	150 acres cane with valuable water springs.
Waiakea	Hilo	95, 000	2, 000. 00	3,000 acres cane; good coffee land.
Hunuaia	do	101, 000	1, 000. 00	500 acres cane.
Honokaia	Hamakua	5, 186	305. 00	800 acres cane.
Auwaiohimu	Honolulu	500	100. 00	Valuable town lots.
Waimanalo	Koolau	6, 500	1, 500. 00	1,200 acres cane.
Lualualei	Waianae	14, 772	700. 00	500 acres cane.
Kapaa and Anahola	Kauai	13, 474	600. 00	1,700 acres cane.
Total .....	.....	424, 422	8, 005. 60	Area cane land, 7,350 acres.

The above figures show that of a total acreage of 424,422 (nearly one-half the whole area of the Crown lands) the rental per acre averages less than 2 cents. These tracts comprise a very valuable proportion of some of the choicest lands in the country, and include upward of 7,800 acres cane land now actually under cultivation, besides a very large area suitable for coffee and other tropical products.

The unfortunate part, to the present generation, of this matter is that a large majority of these leases are still in existence and have many years to run. The Republic of Hawaii, by its laws, merged the Crown and Government lands under the head and title of public lands, and placed their control in the hands of a commission of three.

THE LAND OFFICE.

The Fifty-sixth Congress, in an act to provide a government for the Territory of Hawaii, provided that the commission of three be done away with and a commissioner be appointed by the governor of Hawaii to conduct the affairs of the land department. He is responsible for the administration of the land law. His salary is \$3,600 per annum.

The following comprise the staff of the commissioner:

On the Island of Oahu, 1 secretary, subagent and bookkeeper; 1 patent clerk and 1 clerk.

On the Island of Hawaii, 2 subagents and 2 rangers.

For the islands of Maui, Molokai, Lanai, and Kahoolawe, 1 subagent, and the Island of Kauai, 1 subagent, making a total of 9 regular employees.

SETTLEMENT.

Since taking office on December 1, 1903, it was found the old system of handling lands and the revenues therefrom was entirely inadequate. Aiming to prevent fraud in the handling of the lands, and the possibility of shortages in the revenues from the lands, an entirely new method of accounting for the revenues and listing lands was established. Public lands of greater or less area for the production of sisal, coffee, bananas, pineapples, vanilla beans, etc., are available for settlement on any of the larger islands. Although there are many difficulties to be met with by the settler, still a man of energy and perseverance with small means can probably overcome them. One of the most important difficulties is transportation, but in certain industries this is not so great. Inspection of public lands by prospective settlers is invited and solicited. It is advisable for any colony or body of men to delegate one or two trustworthy members to visit and report on the lands before the main body moves in the matter. It is my intention, with the proper approval, to cut up and offer for settlement every piece of arable land fit to put a settler on as fast as the leases expire. That in following this plan there will be opposition is a certainty, but in the firm belief that this is the only way to increase the citizen population and the wealth, prosperity, and productiveness of the Territory this policy will be maintained.

Lands that are not fit for settlement in small holdings, but which capital may make productive to some certain extent, should be sold outright instead of being allowed to lie idle for another one hundred years.

By the treaty of annexation the title to all public lands is vested in the United States Government, but by the same treaty the use and benefit derived from these lands remain with the people of the Territory. In other words, the Territorial government practically holds the lands in trust and the revenue from the rental of the lands forms a considerable part of the government revenue, while proceeds from the sale of the lands must by law go to liquidate the bonded indebtedness of the Territory.

By referring to the list of patents issued during the past year it will be seen that the first one under the present administration was No. 4782, and following this number there are but five patents on land exchanges. These patents were issued to consummate transactions and agreements made by the previous administration and which had reached such a stage that it was impossible to withdraw them. The numbers of these patents on exchange are as follows: 4793, 4804, 4819, 4820, and 4827.

WATER LICENSE ISSUED.

A reference to the list of general leases issued during the year ending June 30, 1904, shows that the first lease or license issued by the present administration was that to the Kohala-Hamakua Ditch Company. This license was sold at public auction at the judiciary building, Honolulu, March 12, 1904. It allows the licensee to go upon the lands of the government lying between Waipio Gulch and the Honokane-Awini boundary, and between the sea and the 4,200-foot contour line, and conserving and conducting therefrom all the running natural surface water. This water will be taken out and used upon the arable lands of the Kohala district, and the assurance of an abundant and constant supply will undoubtedly cause the people of that section to generally increase their area under cultivation. It will also greatly increase the yield of those lands already being tilled.

The section from which this water is to be taken is one of the roughest and wildest coast sections of the Hawaiian Islands. Its only value is in its abundant water supply, and up to the present this water has run to waste into the sea.

Attention is also called to the increased revenues received by the present administration for lands leased, and also to the fact that all leases for a longer term than five years contain the following special conditions:

And it is further agreed and understood by and between the parties hereto that should at any time during the term hereof part or parts of the herein-demised premises become susceptible of agricultural purposes or be required by the lessor for road or other public uses, the said lessor may reassume and take possession of such part or parts, the same thereupon to be reserved from and cease to be subject to the covenants and conditions of this lease; it being expressly agreed, however, that the said lessor shall be the sole and exclusive judge of the susceptibility of any and all parts of said premises for agricultural purposes and upon the event of the resumption of possession thereof by the lessor for that reason the rent herein reserved shall thereupon be reduced in the proportion that such part or parts bear to the whole.

EMBEZZLEMENTS.

The manner in which the business of this department was conducted previous to my assuming office is shown by these facts:

According to the books the following amounts were due the government on land transactions:

Rents from general leases	\$44,698.95
Interest on right of purchase and homestead leases and special agreements	21,635.50
On purchase price of lands	4,484.05
Making a total of	70,818.50
Close investigation showed that of this amount sums had been collected and embezzled to the extent of	27,234.00
Leaving a balance actually due of	43,584.50

To the amount embezzled should be added about \$5,000 in fees and commutations. The exact amount has not been ascertained as yet, but the old books are now in the hands of the auditor and will soon be known. The embezzlers are under arrest.

It was also found that the patents had been issued in very many cases where the patentee had undoubtedly failed to fulfill conditions, and as this fact was known to other settlers it has caused endless trouble, because the government is now charged with discrimination.

One clause of our law states that the patent shall issue if the conditions have been "substantially performed." This wording has been bent and twisted to meet the will of the subagent and the commissioner until, in many cases, it was apparently clear to them that the "conditions had been substantially performed," when as a matter of fact the patentee never saw his land.

As very valuable lands are placed in the hands of settlers at exceedingly low figures, it is the intention of the present administration to insist upon having the conditions actually performed, trusting to decisions of the United States courts in like cases for guidance. This will create trouble for a short time only, as it will soon be understood that there are two parties to each contract, and that an honest attempt on the part of the settler will meet with prompt recognition on the part of the government.

The public lands of the Territory of Hawaii comprise about 1,720,000 acres. Of this total there are some 500,000 acres which may be classed as barren, owing to the fact that they are rugged and inaccessible mountain tracts, hopeless in the extreme as homesteads. Under the classification of grazing or forest lands there are included 1,000,000 acres, leaving, according to the present division, only about 220,000 acres of so-called first-class agricultural land. Of this there are 25,000 acres which are classed as kula or rice and taro lands and sugar lands. This is not a close classification, for of the million acres of forest lands experience has shown that probably 10 per cent are as highly productive as any of the lower areas.

The higher lands—those which have heretofore been known only as cattle lands, and more recently as forest reserves—are now being made more easy of access through the building of roads where formerly only trails were used, and the value of the acreage will increase in proportion as they are opened. The lands are often so situated that cultivation will make them as great conservers of rainfalls as if they were kept in forests, and thus there is a consequent prospect that the near future will see many hundreds of acres added to the arable areas.

Among the lands classed as agricultural there are acres which are in close contiguity to sugar plantations, and some of these are not available for general agriculture, except where special arrangements have been made with the plantation for the use of water for irrigating purposes. The expense of putting water upon the dry lands is heavy, and this precludes any other than action in concert, or through large corporations which are able to put hundreds of thousands of dollars into pumps and pipe lines.

The average price of sugar lands from private owners is from \$25 to \$60 an acre, but from the government to homesteaders the average is \$10 to \$15. Coffee lands range from \$10 to \$15 an acre under homestead agreement. Grazing lands run from \$1.25 upward.

The land laws of Hawaii can be amended by Congress only, and there have been no changes made since annexation. At present the land office is checking and verifying the various lists of public lands, "taking stock" as it were. When completed there will be accurate lists of the lands, showing the use to which they may be adapted, their situation, area, and value. It is believed that the public lands of Hawaii have heretofore been listed at from 20 to 50 per cent of their value.

Receipts of the public lands department for the year ending June 30, 1904.

LAND REVENUE.

Rents:		
General leases	\$112,543.81	
Right of purchase leases	8,230.40	
Olaa leases	726.34	
Kaimu leases	14.48	
Puukapu leases	34.91	
Miscellaneous	1,248.00	
Interest:		
Homesteads	309.10	
Special agreements	659.72	
Cash freeholds	50.18	
Olaa lots	84.30	
Office fees	314.80	
Patent fees	195.00	
		\$124,411.04

LAND SALES.

Purchase right of purchase leases	14,133.99	
Special agreements	2,735.20	
Homesteads	946.17	
Cash freeholds	652.48	
Olaa lots	405.23	
Cash sales	60.00	
Kaimu and Waiakeola	29.35	
		18,962.42
Total		143,373.46

Land patents issued during the year ending June 30, 1904.

Patent No.	Date issued.	Patentee.	Area.	Location.	Consideration.	Remarks.
4731	1903. July 1	W. C. Achi.....	acres.. 4,166	Honomalaine, S. Kona, Hawaii.	\$1.00	Landexchange.
4732	....do....	Maria Vieira Silva..	do.... 81.18	Waikaumalo, Hilo, Hawaii.	811.80	Right of purchase lease.
4733	July 14	F. W. Barbour.....	do.... 17.09	Kaiwiki, Hilo, Hawaii.	136.72	Do.
4734	....do....	Antonio de S. da Costa, acres.	27.77	Waikaumalo, Hilo, Hawaii.	445.50	Do.
4735	....do....	Jacquin A. Silva.....	acres.. 18.10	do	271.50	Do.
4736	....do....	Hee Akou	do.... 17.13	Puukapu, S. Kona, Hawaii.	85.65	Do.
4738	Aug. 10	Manuel Enos Tavash, acres.	14.7	Kaiwiki, Hilo, Hawaii.	118.80	Do.
4739	....do....	G. F. Affonso	acres.. 18.7	do	149.20	Do.
4740	Aug. 19	John Kane	do.... 13.93	Nanawale, Puna, Hawaii.	170.84	Homesteads.
4741	Aug. 21	Martin Campbell	do.... 13.28	Puukapu, S. Kona, Hawaii.	33.20	Cash freeholds
4742	Aug. 21	John K. Peterson.....	do.... 100	Olaa, Puna, Hawaii.	600.00	Right of purchase lease.
4743	Aug. 27	Maj. E. Davis.....	do.... .52	Tantalus Heights, Kona, Oahu.	1.00	Landexchange.
4744	....do....	A. Enos.....	do.... 20.24	Waipunaiei, Hilo, Hawaii.	242.88	Homesteads.

Land patents issued during the year ending June 30, 1904—Continued.

Patent No.	Date issued.	Patentee.	Area.	Location.	Consideration.	Remarks.
4745	1903. Aug. 27	Alfred Fielding....acres..	16.4	Kaiwiki, Hilo, Hawaii.	\$132.72	Right of purchase lease.
4746	Sept. 4	Manuel Soares ....do....	6.3	.....do.....	52.28	Do.
4747	.....do....	Jacintho Carreta ....do....	5.7	.....do.....	52.28	Do.
4748	.....do....	Mrs. Kini Koukoulā, acres.	11.84	Puukapu, S. Kōhala, Hawaii.	40.00	Do.
4749	Sept. 9	H. F. Wichman, square feet.	4,193	Waiahole, Koolau-poko, Oahu.	1.00	Landexchange
4750	Sept. 14	Elena Kuluwaimaka, square feet.	33,798	Hauula, Koolau-poko, Oahu.	1.00	Do.
4751	June 23	H. M. Von Holt....acres..	2,629	Lualualei, Waianae, Oahu.	1.00	Do.
4752	Sept. 21	Manuel Viera ....do....	28	Ponahawai, Hilo, Hawaii.	224.00	Right of purchase lease.
4753	Sept. 28	P. E. Harkins ....do....	84.24	Kaōhe, Puna, Hawaii.	591.15	Do.
4754	Oct. 5	J. A. Magoon, square feet.	3,044	Punchbowl St., Kōna, Oahu.	502.90	Landexchange.
4755	Oct. 24	Elia Naone .....acres..	56.68	Waikaumalo, Hilo, Hawaii.	900.00	Right of purchase lease.
4757	.....do....	Jose da Costa Morgada, acres.	23.4	Kaiwiki, Hilo, Hawaii.	187.20	Do.
4758	.....do....	Manuel M. Conca.acres..	21.4	Olāa, Puna, Hawaii.	40.00	Do.
4759	Oct. 26	Michel Komorskey, acres.	99.16	.....do.....	597.48	Do.
4760	Oct. 28	H. M. Von Holt, square feet.	19,542	Iwilei, Honolulu, Oahu.	1.00	Landexchange.
4761	Oct. 30	R. K. Baptiste ....acres..	19.6	Kaiwiki, Hilo, Hawaii.	155.44	Time payment.
4762	.....do....	Geo. M. Deacon ....do....	82.98	Waikaumalo, Hilo, Hawaii.	906.00	Right of purchase lease.
4763	.....do....	Antonio Ah Sin....do....	17.12	Waikōa, Kula, Maui.	51.36	Do.
4764	.....do....	Francisco D. Aruda.do....	9.02	Pulehuiki, Kula, Maui.	63.14	Do.
4765	.....do....	Manuel Mareira....do....	6.95	.....do.....	38.99	Do.
4766	.....do....	Honda.....do....	20.08	Waipunalei, Hilo, Hawaii.	289.50	Homesteads.
4767	Oct. 31	Manuel Perera Martines, acres.	14.38	.....do.....	183.60	Right of purchase lease.
4768	.....do....	Manuel Perera Silva, acres.	18.09	.....do.....	176.70	Do.
4769	.....do....	H. Piper.....acres..	61.54	Kaōhe, Puna, Hawaii.	369.24	Do.
4770	.....do....	Walter E. Shaw....do....	110.76	Nahiku, Hana, Maui.	359.97	Do.
4771	Nov. 4	Germain Pacheco....do....	14.86	Waipunalei, Hilo, Hawaii.	157.50	Do.
4772	.....do....	S. Shimamoto.....do....	30.73	Olāa, Puna, Hawaii.	92.94	Olāa reservation.
4773	.....do....	Marria Carvalho....do....	20.31	Ninole and Wailau, Kau, Hawaii.	121.86	Homesteads.
4774	.....do....	A. Grossi.....do....	11.1	Olāa, Puna, Hawaii.	217.60	Right of purchase lease.
4775	Nov. 5	W. P. Thomas ....do....	.44	Wahiawa, Waialua, Oahu.	1.00	Landexchange.
4776	.....do....	Samuel M. Damon.do....	742	Monanlua, Kōna, Oahu.	122.30	Do.
4777	Nov. 10	T. Clive Davies....do....	40	Waiakea, Hilo, Hawaii.	1.00	Do.
4778	Nov. 12	Maria Pavao.....do....	32.7	Ponahawai, Hilo, Hawaii.	345.00	Cash freeholds.
4779	.....do....	J. P. Fernandes....do....	17	.....do.....	258.00	Do.
4780	Nov. 14	Joao Fernandes....do....	68.46	Waikaumalo, Hilo, Hawaii.	645.00	Right of purchase lease.
4781	Nov. 17	Bernice P. Bishop estate, square feet.	44,452	Waiakea, Hilo, Hawaii.	1.00	Landexchange.

COMMENCEMENT OF GOVERNOR CARTER'S ADMINISTRATION.

4782	Dec. 10	Andrew Chalmers.acres..	20	Kahuku, Hilo, Hawaii.	\$300.00	Homesteads.
4783	.....do....	Yoseine Kami....do....	19.71	Waipunalei, Hilo, Hawaii.	283.50	Do.
4784	.....do....	S. W. Kamoi.....do....	16.40	Nanawale, Puna, Hawaii.	164.00	Do.
4785	.....do....	Mary An Hall.....do....	16.48	Ahualoa, Hamakua, Hawaii.	126.60	Do.
4786	.....do....	Keaweualani.....do....	19.74	Kealakehe, N. Kōna, Hawaii.	148.00	Do.
4787	.....do....	J. Mokuaikai.....do....	25.45	Kōhānaiki, N. Kōna, Hawaii.	92.00	Do.

Land patents issued during the year ending June 30, 1904—Continued.

COMMENCEMENT OF GOVERNOR CARTER'S ADMINISTRATION—Continued.

Patent No.	Date issued.	Patentee.	Area.	Location.	Consideration.	Remarks.
4788	1904. Jan. 15	Joseph Viera	acres.. 17.36	Waikaumalo, Hilo, Hawaii.	\$260.40	Right of purchase lease.
4789	....do....	John R. Gaspar....do....	52	Kaiwiki, Hilo, Hawaii.	416.00	Do.
4790	....do....	Antonio Jesus ....do....	17	Ahualoa, Hamakua, Hawaii.	127.50	Homesteads.
4791	....do....	Antonio Cordeiro....do....	16.50	.....do.....	123.75	Do.
4792	....do....	Mrs. Kaili Ikaaka....do....	18.02	Ninole and Wailau, Kau, Hawaii.	108.12	Do.
4793	Feb. 24	Bernice P. Bishop estate, square feet.	8,175	Keakaukui, Kona, Oahu.	1.00	Landexchange.
4794	Mar. 29	Jose Muniz Medeiros, acres.	31.2	Paauiilo, Hamakua, Hawaii.	312.00	Right of purchase lease.
4795	....do....	Otto Medeiros ....acres..	70.91	Niupaa, Hamakua, Hawaii.	709.10	Do.
4796	....do....	John K. Lanakila....do....	20.68	Puukapu-Waimea, S. Kohala, Hawaii.	51.70	Cash freeholds.
4797	....do....	Paulo.....do....	21.68	.....do.....	54.20	Right of purchase lease.
4798	....do....	D. W. K. Waiwai....do....	27.4	Kupahua, Puna, Hawaii.	42.00	Time payment.
4799	....do....	Mrs. E. N. Low ....do....	18.07	Puuanahulu, N. Kona, Hawaii.	45.00	Do.
4800	Apr. 4	Charlotte Kaohu ..do....	10.57	Waipunalei, Hilo, Hawaii.	122.28	Right of purchase lease.
4801	....do....	Jose G. Serrao ....do....	82.8	Ponahawai, Hilo, Hawaii.	82.80	Cash freeholds.
4802	....do....	Maikui.....do....	15.89	Niupaa, Hamakua, Hawaii.	*158.90	Right of purchase lease.
4803	....do....	Joe Gomez.....do....	20.10	Paauiilo, Hamakua, Hawaii.	200.00	Do.
4804	May 2	H. M. Von Holt....sq. ft..	32,200	Kuwili, Kona, Oahu	1.00	Landexchange.
4805	May 16	Manuel Peicato....acres..	17.3	Waikaumalo, Hilo, Hawaii.	259.50	Right of purchase lease.
4806	....do....	B. H. Brown	28.5	Olaa, Puna, Hawaii.	170.40	Olaa reservation.
4807	....do....	Wm. B. Nailima, sr.do....	26.85	.....do.....	161.10	Do.
4808	....do....	Julho Furtado....do....	6.65	Kaauhuhu, N. Kohala, Hawaii.	20.00	Time payment.
4809	....do....	C. L. Kimokeo ....do....	6.6	.....do.....	41.00	Do.
4810	....do....	Manuel G. Clement....do....	18	.....do.....	52.00	Do.
4811	....do....	Robert Laing ....do....	21.23	.....do.....	160.00	Do.
4812	....do....	Mary Anderson....do....	18.31	.....do.....	105.00	Do.
4813	....do....	Frank Caetano....do....	12.80	.....do.....	39.00	Do.
4814	....do....	Joao de Franca....do....	10	.....do.....	31.00	Do.
4815	....do....	John de Nevas....do....	14.08	.....do.....	43.00	Do.
4816	....do....	Manuel Duarte Martines, acres.	12.1	.....do.....	37.00	Do.
4817	....do....	Manuel Assencao....acres..	12.10	.....do.....	47.00	Do.
4818	May 18	Peter B. Nelson....do....	14.25	.....do.....	43.00	Do.
4819	....do....	John K. Naone....sq. ft..	512	Kalokohonu, Pauoa, Kona, Oahu.	1.00	Landexchange.
4820	....do....	C. B. Maile.....do....	2,700	Kawaiiki, Kapalama, Kona, Oahu.	10.20	Do.
4821	June 20	Iokua Maluo.....acres..	31.69	Waikaumalo, Hilo, Hawaii.	373.50	Right of purchase lease.
4822	....do....	Mary K. Nailima....do....	15.6	Olaa, Puna, Hawaii	284.00	Do.
4823	....do....	Charles Elderts....do....	32	.....do.....	243.05	Do.
4824	....do....	D. Moku.....do....	10.57	.....do.....	25.42	Cash freeholds.
4825	....do....	Kalawa.....do....	14.7	Kaauhuhu, N. Kohala, Hawaii.	45.00	Time payment.
4826	....do....	Antone C. de Souza, acres.	27.64	.....do.....	83.00	Do.
4827	June 25	Kalaeloa.....sq. ft..	1,647	Hauhaikoi, Kona, Oahu.	1.00	Landexchange.
Grand total.....acres..			9,785.42	.....do.....	17,839.86	

Land exchanges.

Districts.	No.	Area.
First land district.....	2	<i>Acres.</i> 41.02
Second land district.....		
Third land district.....	1	4,166
Fourth land district.....		
Fifth land district.....	13	3,374.36
Total.....	16	7,581.38

SUMMARY, NOT INCLUDING EXCHANGES.

	Area.	Consideration.	Average per acre.
	<i>Acres.</i>		
Right-of-purchase lease.....	1,443.54	\$12,683.86	\$8.80
Homesteads.....	329.94	2,723.04	8.20
Time payment.....	253.53	988.44	3.10
Cash freeholds.....	177.03	796.12	4.40
Total.....	2,204.04	17,191.46	7.80

Land patents issued on land commission award during the year ending June 30, 1904.

Patent No.	Area.	Patentee.	Location.
8156....	203 fathoms.....	Hewahewa.....	Keopu 3, Kona, Hawaii.
8157....	56.8 acres.....	A. Keliiahonui.....	Iwilei, Kona, Oahu.
8158....	1.35 acres.....	Paukeaho.....	Keanuimano, Waimea, Kohala, Hawaii.
8159....	1.8 acres.....	Koaniani.....	Waipilopilo, Hauula, Oahu.
8160....	5,000 square feet.....	Kaaiawaawa.....	Koiiuu, Honolulu, Oahu.
8161....	540.4 acres.....	W. P. Leleiohoku.....	Puanui, Kohala, Hawaii.
8162....	1,092 acres.....	M. Kekauonohi.....	Moakea, Molokai.
8163....	537 acres.....	Hinaiu.....	Keawanui, Molokai.
8164....	52.2 acres.....	Kahonu.....	Kahua 2, Hilo, Hawaii.
8165....	2,184.44 acres.....	W. C. Lunalilo.....	Kapahulu, Waikiki, Kona, Oahu.

Lands taken under general provisions of the land act of 1895.

[Other than cash sales and Olaa purchases under special conditions of Part IX.]

	Right of purchase lease.			Cash freehold.			Special agreement.			Homestead.	
	No.	Acres.	Value.	No.	Acres.	Value.	No.	Acres.	Value.	No.	Acres.
1. Hilo and Puna...	47	2,801.22	\$19,078.34	3	30.88	\$87.95				3	43.78
2. Hamakua and Kohala.....	3	211.93	740.47								
3. Kona and Kau.....	25	2,478.53	4,402.91	1	768	2,050.00				13	101.80
4. Maui and Molokai.....							1	360	\$1,440.00		
5. Oahu.....										7	21.16
Total.....	75	5,491.68	24,221.72	4	798.88	2,137.95	1	360	1,440.00	23	166.74

SUMMARY OF ABOVE.

	No.	Acres.	Value.
Right of purchase lease.....	75	5,491.68	\$24,221.72
Cash freehold.....	4	798.88	2,137.95
Special agreement.....	1	360	1,440.00
Homestead lease.....	23	166.74	
Total.....	103	6,817.30	27,799.67

Statement of expenditures for the year ending June 30, 1904.

Item.	Appropriation.	Drawn.	Balance.
Commissioner	\$5,400.00	\$1,800.00	\$3,600.00
Secretary and subagent, fifth district	3,150.00	987.90	2,162.10
Clerk and bookkeeper	2,700.00	900.00	1,800.00
Patent clerk	1,800.00	600.00	1,200.00
Typewriter and copyist	900.00	300.00	600.00
Subagent:			
First land district	1,800.00	600.00	1,200.00
Second land district	900.00	50.00	850.00
Third land district	720.00	240.00	480.00
Fourth land district	900.00	300.00	600.00
Sixth land district	540.00	90.00	450.00
Ranger, first land district	900.00	200.00	700.00
Clerk, first land district	720.00		720.00
Ranger:			
Second land district	540.00	120.00	420.00
Third land district	900.00	200.00	700.00
Fourth land district	540.00	60.00	480.00
Fifth land district	540.00	60.00	480.00
Sixth land district	360.00		360.00
Office incidentals, etc	2,400.00	1,277.78	1,122.22
Printing and advertising	3,000.00	540.61	2,459.39
Purchase of books	375.00	22.50	352.50
Appraiser's fees	225.00	6.00	219.00
Preliminary roads and trails	5,250.00		5,250.00
Expenses filing boundary certificates	375.00	25.00	350.00
Survey works class, public lands	2,500.00		2,500.00
Total	37,435.00	8,379.79	29,055.21

General leases issued during the year ending June 30, 1904.

Date of lease.	Name of lessee.	Location of land.	Class of land.	Area.	Term of lease.	Annual rental.	Former rental.
1903.				<i>Acres.</i>	<i>Years.</i>		
Nov. 17	Hutchinson Sugar Co.	Kau, Hawaii.....	Right of way for water pipe.	Uncertain.	30	\$20.00	.....
Oct. 15	John Broad.....	Kona, Hawaii.....	Various remnants, pastoral.		(a)	30.00	.....
Nov. 7	Chew Wo Chong Co.	Pauoa, Oahu.....	Taro, agricultural	1.95	5	220.00	.....
Dec. 12	Hamakua Mill Co.	Hamakua, Hawaii	Cane and pastoral	80	5	200.00	.....
Dec. 12	do	do	do	185	5	462.50	.....

COMMENCEMENT OF GOVERNOR CARTER'S ADMINISTRATION.

1904.							
Mar. 12	J. S. Low	Kohala, Hamakua	Water right.....		50	\$1,000.00	.....
Apr. 1	Mrs. J. K. Iaukea.	Kaneohe, Oahu...	Fish pond and kula.	6.25	10	135.00	\$50.00
Apr. 26	Wailuku Sugar Co.	Waiahu, Maui....	Cane and kula....	75.01	5	220.00	100.00
Apr. 23	Hawaiian Agricultural Co.	Kau, Hawaii.....	do	186	5	600.00	250.00
Apr. 23	Wing Sing Lee Co.	Manoa, Oahu.....	Taro and kula....	6.51	5	175.00	100.00
Apr. 26	American Sugar Co.	Hoolehua, Molokai.	Pastoral	3,736	14	440.00	.....
May 7	L. K. Kentwell..	Hauula, Oahu....	Rice and kula....	15.94	5	330.00	200.00
June 2	Chas. Gay	Kalulu, Lanai....	Pastoral	5,000	21	600.00	150.00
June 2	A. C. Lovekin....	Necker Island....	Fishing purposes.	46.50	21	25.00	.....
June 18	Lam Wo Sing....	Waikiki, Oahu....	Rice	49.29	5	1,550.00	750.00

^a T. W. thirty days' notice.^b And 1 per cent gross revenue.

SUMMARY OF ABOVE.

General leases:		
Number		15
Acres		9,388.45
Annual rental		\$6,007.50

"CROWN LANDS" OF THE TERRITORY.

The following is a brief description of the lands formerly known as "Crown lands," but now a part of the public lands of the Territory. This list does not include those portions now under control of the superintendent of public works. The values given are approximate only, as in many cases the proper area is very doubtful and can only be correctly stated after a complete survey and location of kuleanas has been made.

The total area given below is 905,798.15 acres, and the total value of this land is placed at \$8,098,175. This is believed to be a fair valuation of the lands, unincumbered.

ISLAND OF OAHU.

DISTRICT OF KONA.

Kuwili.—Area, 17.80 acres; value, \$10,000. Fish pond and rice lands, situate on seashore at Kapalama. This property is under lease to Chin Wo Company at \$285 per annum. Date of lease, January 1, 1902; lease expires January 1, 1907.

Kapaloa.—Area, 6.55 acres; value, \$5,000. Taro land, situate in Pauoa Valley. Under lease to Kwong Ak In Company and Chew Wo Company at \$380 per annum. Date of leases, May 12, 1891, and November 7, 1903; leases expire April 1, 1906, and July, 1909.

Hamama—*Piliamoo*—*Kauamoo*—*Puahia*.—Area, 66.07 acres; value, \$20,000. Taro land, situate in Manoa Valley. Under lease to Kapiolani estate at \$220 per annum. Date of lease, July 1, 1882; lease to expire July 1, 1912.

Kahaunakaaawe.—Area, about 6.50 acres; value, \$3,000. Taro land, situate in Manoa Valley. Under lease to Wing Sing Lee Company at \$175 per annum. Date of lease, April 23, 1904; lease to expire May 1, 1909.

Haleleua.—Area unknown. A small remnant of taro land in Manoa Valley.

Mookahi, 1 and 2.—Area, about 6 acres; value, \$3,000. Rice or banana land, above the Waikiki road and east of the Pau land. Of this land 1.46 acres is under lease to Kwong Sing Company at \$60 per annum. Lease dated April 11, 1899; expires March 5, 1915.

Kahalawahine—*Kaluaolohe*—*Kualawai*—*Kaloiki*—*One-half Paiea*.—These are small remnants, and their exact location and area have apparently never been fixed.

Kaneloa (part).—Area, 15.70 acres; value, \$9,000. Riceland, adjoining west boundary of Kapiolani Park. Under lease to Lam Wo Sing at \$545 per annum. Lease dated March 7, 1903, and to expire March 7, 1908.

Waiomao and Pukele.—Area, about 946.75 acres; value, \$30,000. Small portion taro land, but mostly grazing land, situate in Palolo Valley. The lease on this land having expired, it is the present intention to cut the land up and open it up for settlement.

DISTRICT OF EWA.

Waikakalana, Ohua.—About 678 acres grazing land, value \$13,000, situate on the uplands north of Pearl Harbor.

Pouhala (one-half).—Eight hundred and ten acres agricultural grazing land, value \$22,000, together with a few acres of fish pond, are situate at or near to Pearl Harbor, and are at present held under lease No. 68 to Dowsett estate, this being same lease that covers lands of Waianae-uka, the large United States military reservation. This lease is dated January 14, 1882, and expires January 14, 1912.

Weloka.—A fish pond of 21 acres, value \$10,000, adjoining the east side of Pearl City peninsula.

Puukakua.—Five acres of rice land, value \$2,500, on the peninsula adjoining the fish pond, are under lease to Mrs. Mary D. Frear at \$100 per annum. This lease is dated July 1, 1888, and expires July 1, 1918.

Honokawailani and Kauhikau.—These are several pieces of rice and kula land, value \$5,000, containing an area of about 11.50 acres, on and near the middle loch of Pearl Harbor, and are under lease to Sing Chong & Co. at \$75 per annum. Lease dated January 1, 1889, and expires January 1, 1909.

Aiea.—About 1,170 acres of rice, cane, and pasture land, value \$90,000, running back about 4 miles from the east loch of Pearl Harbor, and having an average width of about one-third of a mile. Is under lease to the Dowsett estate at \$250 per annum. Lease dated January 14, 1882, and expires January 1, 1912.

Waianae-kai.—Six thousand one hundred and forty-three acres of cane, taro, coffee, kula, and mountain land, site of the Waianae sugar plantation, on west coast of Oahu, about 35 miles from Honolulu. Has about 2 miles of coast line and extends back about 5 miles to crest of Waianae Mountains. Value, about \$300,000. Is under lease to Waianae Company at \$1,200 per annum. Lease dated September 11, 1879, and expires July 1, 1909.

Waianae-uka.—Fourteen thousand six hundred and seventy-eight acres of kula and mountain land, inland, about 20 miles west of Honolulu. This land has been reserved for military purposes, otherwise we could quickly settle a large proportion as soon as the lease expires, it being, to a considerable extent, excellent agricultural land. Value, about \$100,000. Is under lease to Dowsett estate at (with other lands) \$500 per annum. Lease dated January 14, 1882, and expires January 14, 1912.

Kaau.—Two thousand four hundred and thirty-one acres of kula and mountain land, on the coast about 40 miles northwest of Honolulu. Has about 2 miles of coast line and extends back about 3 miles to crest of mountains. Value, about \$12,000. Not under lease.

Lualualei.—About 8,000 acres of cane, kula, and mountain land, on coast about 32 miles northwest of Honolulu. Has about 6 miles of coast line and extends about 7 miles inland to crest of Waianae range. Original area about 15,000 acres, of which about 7,000 acres of the best land has been sold from the center of the tract. Value, about \$275,000. Three thousand three hundred and thirty-two acres under lease to Waianae Company at \$9,000 per annum. Lease dated December 1, 1901, and expires December 1, 1906.

Nanakuli.—About 3,431 acres of kula and mountain land, about 29 miles northwest of Honolulu. Has about 1½ miles of coast line and extends about 4 miles inland to crest of mountains. Value, about \$20,000. Is under lease to Dowsett estate at \$570 per annum. Lease dated January 14, 1882, and expires February 28, 1912.

Kaneohe (Crown remnants).—Aggregate, 2,320.28 acres, in 19 separate pieces, and consists of all classes of land. Value, about \$100,000. There are seven leases on portions of this land, as follows: Five hundred and twenty-five acres to Kaneohe Ranch Company, at \$225 per annum; lease dated June 13, 1903, and expires June 13, 1913. Seventy-two and forty-two one-hundredths acres to Chang En Chong, at \$260 per annum; lease dated March 7, 1903, and expires March 7, 1913. Eight hundred and fifteen and thirty one-hundredths acres to J. P. Mendonca, at \$200 per annum; lease dated October 15, 1883, and expires October 15, 1913. Three hundred and forty-two acres to Heeia Agricultural Company, at \$300 per annum; lease dated April 14, 1893, and expires May 1, 1913. Sixty-seven and twenty-one one-hundredths acres to L. Ahlo, at \$500 per annum; lease dated January 14, 1891, and expires January 1, 1906. Six and twenty-five one-hundredths acres to Mrs. J. K. Iankea, at \$135 per annum; lease dated April 1, 1904, and expires April 1, 1914. Three hundred and fifty-three acres to Kaneohe Ranch Company, at \$450 per annum; lease dated August 31, 1898, and expires July 1, 1920. This makes a total of 2,181.18 acres leased at \$2,070 per annum, and leaves 139.10 acres to be disposed of.

Waimanalo.—Six thousand nine hundred and seventy acres of cane, kula, and mountain land. Has about 6 miles of coast line on the northeast coast of Oahu and extends back to crest of mountains. Site of the Waimanalo sugar plantation. Value, about \$350,000. Is under lease to the Waimanalo Sugar Company at \$1,500 per annum. Lease dated November 22, 1890, and expires November 22, 1920.

Pupukea and Paumalu.—About 4,000 acres of pasture land, with a small proportion of arable land, situate on northwest coast of Oahu, about 70 miles from Honolulu by rail. Has about 5 miles of coast line and extends back to mountains. Value, about \$30,000. Has just been cut up into 18 lots of about 200 acres each for settlement. A forest reserve of about 400 acres is retained from the upper lands.

Hauula.—About 1,400 acres of beach, kula, and mountain land on the north coast of Oahu, about 30 miles from Honolulu. Has about 1 mile of coast line and extends back in a narrow valley about 4 miles. Not under lease. Value, about \$15,000.

ISLAND OF MAUI.

Lahaina.—About 60 acres of land and fish ponds, and consisting of many small patches and remnants in and about the town of Lahaina, remain of the Lahaina Crown lands. Value, about \$6,000.

Wahikuli.—Area, about 2,807 acres. Has about $1\frac{1}{2}$ miles of coast frontage on west coast of Maui, just north of the town of Lahaina. Extends about 3 miles inland. Cane and grazing land. Value, about \$40,000. Under lease to the Pioneer Mill Company at \$700 per annum. Lease dated April 1, 1890, and to expire April 1, 1913.

Olowalu.—Area, about 6,025 acres. Has about $2\frac{1}{2}$ miles of sea frontage and about 5 miles of depth to crest of mountains. Site of Olowalu Sugar Company. Good landing. Cane, grazing, and rough mountain land. Value, about \$75,000. Under lease to Olowalu Company at \$800 per annum. Lease dated October 5, 1875, and to expire July 1, 1908.

Ukumehame.—Area, about 11,000 acres. Has about 8 miles of sea frontage, including one very good landing. Extends inland about 6 miles to high elevation on mountains. Lower lands very dry and rocky; grazing. Upper lands, first-class grazing. Value, about \$40,000. Under lease to C. Brewer & Co. at \$250 per annum. Lease dated March 1, 1892, and to expire November 1, 1906.

Kealahou.—Area, 217 acres. In the Kula district, on the west slope of Haleakala. Elevation, about 3,000 feet. Main portion agricultural, balance grazing land. Value, \$5,000. Under lease to Joseph Lopez at \$100 per annum. Lease dated January 30, 1888, and to expire January 1, 1908.

Keokea and Waiohuli.—Area, about 17,000 acres. Has a frontage of about 2 miles on the west coast of East Maui, and extends up the slope of Haleakala about 12 miles to an elevation of 9,000 feet. About 5,000 acres arable land, the balance good grazing land. Value, \$200,000. Under lease to W. H. Cornwell (estate) at \$1,500 per annum. Lease dated January 12, 1891, and to expire January 1, 1911.

Waiohonu.—Area, 395 acres, about one-third of a mile wide, on the east coast of Maui; $2\frac{1}{2}$ miles deep. Good boat landing. A large proportion is good cane land, the balance grazing. Value, \$9,000. Under lease (T. W.) to Reciprocity Sugar Company at \$200 per annum.

Wailua.—Area, 300 acres. Very narrow at the sea, and about 2 miles deep. Value lies principally in its water supply, and is about \$5,000. Under lease (T. W.) to C. Brewer & Co. at \$60 per annum.

Honomanu.—Area, 3,260 acres.

Wailua, 1 and 2.—Area, 3,000 acres.

Keanae.—Area, 11,148 acres.

These three have about 7 miles of coast line on the northeast coast of Maui. Their principal value lies in their supply of water, which is used on large sugar plantations west of these lands. Value, \$50,000. Honomanu is under lease to the Hawaiian Commercial and Sugar Company at \$500 per annum; lease dated July 1, 1878, and to expire July 1, 1908. Of the 14,148 acres of Keanae and Wailua 1 and 2, 12,500 acres are under lease to H. P. Baldwin at \$1,100 per annum; lease dated February 26, 1902, and to expire February 26, 1923.

Polipoli.—Area, 75 acres, about 25 acres of which are cane land, the balance being grazing land. Inland, about 3 miles west of the town of Wailuku. Value, \$3,500. Under lease to the Wailuku Sugar Company at \$220 per annum; lease dated April 26, 1904, and to expire May 1, 1909.

Kahakuloa.—Area, 10,523 acres. Has about 8 miles of coast line on north coast of west Maui. Extends inland to a point about 4,500 feet elevation. A small proportion is arable, the large majority of the land being very rough and poor grazing land. The water supply is fairly good. No roads, and trails are impassable during very stormy weather. Value, about \$25,000. About 800 acres of this land is under lease to Wailuku Sugar Company at \$100 per annum; lease dated July 1, 1863, and to expire July 1, 1913.

Napili.—Area, 300 acres, about 9 miles northwest of the town of Lahaina. Mostly dry grazing. About 1,000 feet coast line and over 3 miles deep. Value, \$4,500. Under lease (T. W.) to H. P. Baldwin at \$275 per annum. He holds as T. W. for the one year allowed by law, his old lease for fifteen years having expired January 1, 1904.

Honokawai.—Area, 4,000 acres. Has coast line of about $2\frac{1}{2}$ miles on west coast of west Maui and extends inland for about $6\frac{1}{2}$ miles. Upper portion, rough grazing; lower portion, good cane land. Value, about \$65,000. Under lease to Pioneer Mill Company at \$750 per annum; lease dated April 1, 1890, and to expire April 1, 1912.

ISLAND OF MOLOKAI.

Kalamaula.—Area, about 6,747 acres. Has about $2\frac{1}{2}$ miles of frontage on south coast of Molokai and extends about 7 miles inland. Springs of fresh water at upper boundary; valuable fish pond and cocoanut grove at beach; balance dry grazing land. Value, \$35,000.

Kapaakea.—Area, about 2,178 acres. A long, narrow strip with about one-half mile of sea frontage and a depth of about 6 miles. Fish ponds at beach, but mostly dry grazing land. Value, \$7,500.

Palaau.—Area, about 11,250 acres. In three sections. Larger piece has about 7 miles of frontage on north coast; smaller piece has about 1 mile of frontage on south coast; remaining and smallest piece is inland. Nearly all dry grazing land. Value, \$35,000.

The above lands of Kalamaula, Kapaakea, and Palaau are under lease to the American Sugar Company (now a stock-raising concern) at \$1,200 per annum; lease dated February 10, 1888, and to expire January 1, 1918.

Ualapue.—Area, about 709 acres. A long, narrow strip, having about three-fourths of a mile frontage on southeast coast and extending about 3 miles inland to top of mountain range. Some good taro land and fish ponds on coast, balance grazing land. Value, about \$4,500. Grazing land is under lease to H. R. Hitchcock at \$210 per annum; lease dated August 31, 1898, and to expire September 1, 1919. Fish pond is under lease to A. C. Dowsett at \$55 per annum; lease dated January 1, 1896, and to expire January 4, 1911.

ISLAND OF LANAI.

Kamoku.—Area, about 8,000 acres. Good grazing land. Has about 3 miles of sea frontage, with a good harbor. Extends inland about 6 miles. Value, \$40,000.

Paomai.—Area, about 9,000 acres. Good grazing land. Has about $5\frac{1}{2}$ miles of sea frontage, including one fair landing. Extends inland over 6 miles. Value, \$37,000.

Kamoku and Paomai are under one lease to Charles Gay at \$500 per annum; lease dated December 19, 1890, and expires January 1, 1916.

ISLAND OF KAUAI.

Kalaheo.—About 4,000 acres of cane, kula, and mountain land, having about 2 miles of coast line on south coast of Kauai, and extending back to mountains. Under lease to McBryde Sugar Company, at \$300 per annum. Lease dated February 15, 1859, and expires February 15, 1909. Value, \$150,000.

Hanapepe.—About 8,000 acres of cane, rice, and kula land, having about $3\frac{1}{2}$ miles of coast line (embracing Hanapepe Bay) on south coast of Kauai. Very valuable water rights. Under lease to Hawaiian Sugar Company, at \$1,000 per annum. Lease dated December 27, 1887, and expires December 27, 1917. Value, \$350,000.

Waimea.—About 92,000 acres of cane, rice, kula, and wood land, having about 25 miles of coast line on west coast of Kauai. Very valuable water rights. Value, \$2,000,000. Two leases, as follows: To Gay and Robinson, the Ahupuaa of Waimea, at \$1,300 per annum. Lease dated December 27, 1887, and expires December 27, 1917. To V. Knudsen, the Ahupuaas of Kekaha, Pokii, Waiawa, Mokihana, Milolii, Nuololo, and Mana, at \$4,000 per annum. Lease dated June 1, 1890, and expires June 1, 1920.

Hanalei.—About 16,000 acres of rice, kula, and mountain land, having about 4 miles of coast line on north coast of Kauai. Valuable water supply and large forest reserve. Value, \$100,000. Lease expiring, this land is being cut up into homesteads and grazing tracts.

Anahola and Kapaa.—About 13,400 acres of rice, sugar, kula, and mountain forest land. Occupies 5 miles of the east coast line of Kauai, including Anahola Harbor. Under lease to Makee Sugar Company, at \$600 per annum. Lease dated May 1, 1877, and expires May 1, 1907. Value, \$400,000.

Wailua.—About 20,255 acres of rice, sugar, kula, and mountain forest land, with very large and valuable supply of water. Occupies about 5 miles of east coast of Kauai. Known and leased as Wailua-uka and Wailua-kai.

Wailua-uka.—Area, 17,455 acres; leased to Lihue Plantation, at \$1,200 per annum. Lease dated October 1, 1887, and to expire October 1, 1916.

Wailua-kai.—Area, 2,800 acres; leased to E. Lindermann, at \$800 per annum. Lease dated April 13, 1891, and to expire July 1, 1921. Total value of these lands, with their abundant water supply, is about \$750,000.

ISLAND OF HAWAII.

DISTRICT OF KONA.

Puuwaawaa.—Area, about 40,000 acres. Has about 7 miles of coast line, including Kiholo Harbor, and extends inland about 14 miles to an elevation of 6,900 feet. Mostly barren lava on lower lands. Some of upper land good grazing. Some arable land between 2,500 and 3,500 feet elevation. No running water. Considerable rain. Value, about \$75,000. Under lease to R. Hind, at \$1,210 per annum. Lease dated March 1, 1894, and to expire August 15, 1918. Lessee required to allow no lantana to grow upon the land.

Haleohiu.—Area supposed to be about 1,000 acres. Has about one-half mile of coast line on west coast, and extends about 7 miles inland to an elevation of about 3,300 feet. Very long and narrow. Rough and dry pasture land. Value, \$1,250.

Waiaha 2.—Area about 260 acres; about one-fourth the size, otherwise same lay and general character as Haleohiu. Value, \$350.

Puaa.—Adjoins Waiaha 2, and said to contain 859 acres. This area is doubtful. If correct, value about \$1,075. Class same as Haleohiu.

Onouli.—Area, 367 acres. Inland, and covered with a heavy forest of koa and ohia. Value about \$1,000.

Honomalino.—Remaining area about 1,200 acres of heavy forest, inland, at an elevation of 3,000 feet. Value, \$3,500.

DISTRICT OF KAU.

Waiohinu.—Fifteen thousand two hundred and ten acres, near the south point of Hawaii. Has about 3 miles of coast line, including a

safe harbor, called Kaalualu. Extends inland about 16 miles to an elevation of 5,800 feet. The lands nearest to the coast are very rough and rocky grazing lands. The middle section contains a fair proportion of arable land, and the upper portion is covered with a dense forest of koa and ohia. Has frequent rains and a good supply of spring water. Under lease to the Hutchinson Sugar Company, at \$600 per annum. Lease dated April 5, 1889, and to expire April 1, 1914. Value, \$75,000.

Kapapala.—Area, 172,780 acres. Has about 7 miles of coast line on southeast coast, and extends inland 25 miles to the summit crater of Maunaloa at an elevation of about 13,500 feet. The lower lands are extremely dry and of very small value. The western portion contains some arable land and a large area of grazing land. Considerable rainfall on upper and western lands. Value, \$175,000. Under lease to Hawaiian Agricultural Company, at \$1,200 per annum. Lease dated July 1, 1887, and to expire July 1, 1907.

DISTRICT OF PUNA.

Olaa.—Area of remainder not cut up into homesteads, about 10,000 acres. Inland, on east slope of mountain, between 2,700 and 5,000 feet elevation. Good for little else than grazing purposes. A small portion may be used later for summer mountain homes. Value, probably, \$20,000.

Apua.—Area, 9,400 acres. Has about two miles of coast line on southeast coast of Hawaii, and extends inland 8 miles to an elevation of 3,200 feet. Very rocky grazing land. Value, \$14,000.

Kaimu-Waiakolea.—Area about 5,000 acres. Has about 1½ miles of coast line on southeast coast.

Kehena.—Area about 1,000 acres. Has about 1 mile of coast line on southeast coast.

The above lands of Kaimu-Waiakolea, Kehena are of similar character, being mostly rocky grazing land, with patches of arable land here and there. Probable value about \$9,000. An 18-acre fish pond is under lease to H. E. Wilson, at \$40 per annum. Lease dated June 17, 1896, and to expire May 1, 1911.

DISTRICT OF HILO.

Waiakea.—Area about 95,000 acres. Has about 9 miles of coast line, commencing at Hilo Harbor and running east and south. Extends inland about 26 miles to an elevation of 6,000 feet. Contains about 150 acres of what might be termed town lots, probably as much more that could be called beach lots, about 5,000 acres of cane land, and balance grazing land. Portions very rough and rocky. A number of large and first-class fish ponds form a part of Waiakea. Value, \$750,000. Under lease to Waiakea Mill Company, at \$2,000 per annum. Lease dated June 1, 1888, and to expire June 1, 1918.

Ponahawai.—Reserved for homesteads and mostly taken up.

Piihonua.—Area about 57,236 acres. Extends from the water front 21 miles inland to an elevation of 6,000 feet. Value of other than town property, \$225,000. Under lease to John Baker, at \$300 per annum. Lease dated March 21, 1887, and to expire March 21, 1921.

Ili of Waiau.—An unknown area in heart of Piihonua, 125 acres, under lease to Hilo Sugar Company, at \$500 per annum. Lease dated December 1, 1890, and to expire December 1, 1915. Value, \$12,500.

Humuula.—Area about 101,500 acres. Has but 1 mile of coast frontage. Extends inland about 40 miles to an elevation of 12,500 feet. Has about 1,000 acres of cane land near coast, and several thousand acres of arable land between cane belt and 7,000 feet elevation. Large tracts of lava and waste lands. Value, probably \$125,000. Under lease to Humuula Sheep Station Company, at \$1,000 per annum. Lease dated March 6, 1876, and to expire April 1, 1908.

Hakalan-Iki.—Area, 575 acres. On southeast coast of Hawaii, and has about one-half mile of coast line and extends about 4 miles inland. All good cane land. Value, \$65,000. Under lease to Claus Spreckels, at \$500. Lease dated October 15, 1878, and to expire October 15, 1908.

Manowaiopae.—Area, 180 acres. On southeast coast of Hawaii. Long, narrow strip. Has valuable water rights. All cane land. Value, \$20,000. Under lease to Laupahoehoe Sugar Company, at \$180 per annum. Lease dated March 28, 1893, and to expire April 1, 1908.

DISTRICT OF HAMAKUA.

Honokaia.—Area, 5,186 acres. Has three-fourths of a mile sea frontage on north coast of Hawaii. Extends inland about 8 miles to 3,300 feet elevation. Lower portion good cane land, and upper part good grazing land. Value, \$80,000. Seven hundred and fifty acres under lease to Honokaa Sugar Company, at \$2,776 per annum. Lease dated April 1, 1893, and to expire April 1, 1913. Balance (about 4,400 acres) under lease to Parker estate, at \$305 per annum. Lease dated October 1, 1878, and to expire July 1, 1913.

Kalopa.—Area, 6,600 acres. Has about one-half a mile frontage on north coast of Hawaii, and extends to 7,200 feet elevation, 13 miles up slope of mountain. Lower portion fine cane land. Has fine koa forest. All open land, good grazing. Value, \$125,000. Under lease to Parker estate, at \$1,033 per annum. Lease dated July 1, 1886, and to expire July 1, 1913.

Waimanu — Muliwai — Kaohia — Pohakumauluwulu.—Area about 10,000 acres. High mountain and deep valley land, with frontage of about $3\frac{1}{2}$ miles and depth of $4\frac{1}{2}$ miles on north coast of Hawaii. Probably 5 acres of arable bottom land; balance high lands covered by heavy forests. Value, \$20,000. Two hundred and thirty-three acres under lease, as follows: Two hundred acres to L. Akaka, at \$400 per annum. Lease dated January 1, 1899, and to expire January 1, 1920. Thirty-three acres to Mrs. L. Kaili, at \$150 per annum. Lease dated July 15, 1887, and to expire July 15, 1912.

DISTRICT OF KOHALA.

Pololu.—Area about 1,300 acres. A deep valley on north coast of Hawaii, with sea frontage of one-half mile and depth of 4 miles. Contains about 200 acres of rich bottom land, the balance being very steep and heavily wooded bluffs. Value, \$20,000. Under lease to G. C. Akina, at \$600 per annum. Lease dated January 7, 1882, and to expire January 1, 1905.

Kaauhuhu.—Area about 1,300 acres. Has about one-half mile sea frontage on extreme north point of Hawaii; depth of 5 miles. Good cane and grazing land. Value, \$37,500. Five hundred and eighty-three acres under lease to Hind estate, at \$1,400 per annum. Lease dated April 5, 1898, and to expire May 1, 1913. One hundred acres

under lease to Union Mill Company, at \$300 per annum. Lease dated April 5, 1898, and to expire May 1, 1913.

Kawaihae.—Area, 13,000 acres. Has about $2\frac{1}{2}$ miles of frontage on west coast of Hawaii, with depth of 10 miles. About 5,000 acres very dry and poor pasture land. Balance very good grazing land, with sufficient water. Small portion arable. Regular landing at village of Kawaihae. Value, \$40,000. Under lease to Parker estate, at \$1,050 per annum. Lease dated January 1, 1888, and to expire July 1, 1913.

Momoualoo.—Area, 317 acres. A long, narrow strip of land, between 2,500 and 5,000 feet elevation, on south slope of Kohala Mountain; a portion arable, though mostly good for grazing only. Value, \$1,500. Under lease to Parker estate, at \$64 per annum. Lease dated November 15, 1853, and to expire July 1, 1913.

Waimea.—Area, 41,600 acres. Has a sea frontage of about 5 miles, including Puako Harbor, and extends inland about 20 miles. Several thousand acres of this land, at an elevation of 2,000 to 3,000 feet, is fine arable land, with plentiful supply of water. The lower land is mostly dry grazing, though there is some cane land at Puako. The highest lands furnish good grazing. Value, \$350,000. This land is all under lease to Parker estate; one lease of 258 acres, at \$258 per annum, lease dated June 30, 1888, and to expire June 1, 1908; and two leases on balance—one dated January 1, 1876, at \$1,334 per annum—the other July 1, 1878, at \$793 per annum, both to expire July 1, 1913.

THE PUBLIC WORKS DEPARTMENT.

By C. S. HOLLOWAY.

Under the former Monarchy and Republic, the department having charge of all internal improvements was under the direction of the minister of the interior. By provision of the organic act, the powers of this official were placed under the control of the superintendent of public works and a few of the duties transferred to other departments, such as the care of public lands, promotion of agricultural interests, naturalization of foreigners, promulgation of proclamations, direction of insane asylums, issuance of licenses, and registration of trademarks and brands. The construction and maintenance of light-houses and buoys was also under the supervision of the superintendent of public works until January 1, 1904, when this department was taken over by the Federal Government, President Roosevelt having issued a proclamation to this effect.

At the present time the construction of all roads and bridges, landings, wharves, and public buildings, as well as repairs to them, the operation of the Government waterworks, sewerage systems, electric-light plants, maintenance of public grounds, with the exception of one park in Honolulu, for which a commission is appointed by law, the public markets, and the pilots' establishments, are under the control and management of the public works department.

The force consists of the superintendent, assistant superintendent, and chief clerk, with his office staff, organized to collect revenues from the waterworks, sewerage system, public markets, government wharves, and rents of city property, and this subdepartment also looks after the expenditures made for public works. There are also super-

intendents for the waterworks, electric-light and sewerage departments, and a road supervisor for Honolulu. The harbor master has control of all vessels entering this port and collects fees from them for wharfage.

Plans and specifications are drawn up in the office of the assistant superintendent, and as the law requires that all work or purchase of material amounting to over \$500 shall be awarded by contract only after public advertisement for tenders, this requires the service of a large corps of engineers and draftsmen in preparing plans and specifications.

The following statements show the amounts of appropriations, and expenditures for the year ending June 30, 1904, and amounts unexpended.

SALARIES AND PAY ROLLS.

In the analysis of salaries and pay rolls, groupings are as follows:

General superintendence.—Superintendent, assistant superintendent, chief clerk, first assistant clerk, second assistant clerk, third assistant clerk, fourth assistant clerk, stenographer and typewriter, agent public works Hilo, two messengers, clerk to assistant superintendent, typewriter, and draftsmen.

Roads and bridges.—Road supervisor, road engineer, bookkeeper, road supervisor, cantoniers, and pay roll roads and bridges, Honolulu.

Waterworks.—Superintendent, clerk and assistants, reservoir keepers, plumber and assistants, tap inspector, shipping tenders, engineers and fireman, Honolulu; superintendent Lahaina waterworks, superintendent Wailuku and Kahului waterworks, superintendent Hilo waterworks, superintendent Laupahoehoe waterworks, and superintendent Koloa waterworks.

Sewerage.—Superintendent of sewers, sewer pay rolls, pay rolls garbage and excavator service, and pay roll garbage crematory.

Fire department.—Regular pay roll, fire department.

Electric lights.—Electric-light pay roll.

Harbor expenses.—Harbor master, assistant harbor masters, pilots, pay roll of pilot boats, watchman Diamond Head, watchman pilot's office, keepers of Hilo and Lahaina wharves, and steam tug pay roll.

Grounds and buildings.—Pay roll government buildings, Aala Park, Thomas and Emma squares, guards, janitor and keeper of mausoleum.

Miscellaneous.—Pay rolls Waiakamilo Camp, Honolulu market keeper and assistant, Hilo market keeper, pound masters, veterinary surgeons, light-house keepers, keepers gunpowder and kerosene oil, Honolulu and Hilo.

	Appropriations.	Expended.	Unexpended.
General superintendence.....	\$37,500.00	\$22,390.83	\$15,109.17
Roads and bridges.....	28,113.00	25,805.68	2,307.32
Waterworks.....	29,205.00	24,678.38	4,526.62
Sewerage.....	57,768.00	45,569.67	12,198.33
Fire department.....	68,560.00	43,351.62	25,208.38
Electric lights.....	9,180.00	9,005.00	175.00
Harbor expenses.....	78,300.00	35,142.80	43,157.20
Grounds and buildings.....	24,960.00	10,505.21	14,454.79
Miscellaneous.....	11,627.50	9,120.40	2,507.10
Total.....	345,213.50	225,569.59	119,643.91

ROAD WORK AND BRIDGES.

While this department has entire supervision of road work on the various islands of the group, it was some time ago deemed advisable to have local representation, and a system was adopted whereby a board of three men was appointed by the superintendent of public works in each district, to serve without pay. These boards have charge of the construction and maintenance of the roads and bridges, as well as the expenditure of road-tax funds in their various districts, amounting to \$2 per capita. Originally this system was operated satisfactorily, and it has accomplished much in building up a high standard of roads. Now, however, in many districts, there is so much work to be done that a volunteer service of this kind is inadequate, and paid engineers have been found to be more efficient. The last legislature made provision for a road engineer on the Island of Hawaii, and, as his work has proven so satisfactory, in all probability this arrangement will be adopted for the other main islands of the group. The roads in Honolulu and also the outer districts are in general well laid out, of moderate grade, and properly drained. In Honolulu and Hilo stone macadam is used entirely, the rock being obtained from government quarries, and for light traffic it will be hard to improve on this form of pavement.

Nearly all of the freight imported to the islands is landed at Honolulu and Hilo, so that there is a large amount of heavy hauling on the water front in these cities. Permanent pavements, either of stone, vitrified brick, wood, or bitumen, should be constructed. This matter is being carefully looked into at the present time in order that definite estimates can be submitted to the next legislature, and they will then be in a position to make proper appropriations if it is found desirable to take up this work. Each island has what is known as a belt road around it, and these, in most instances, consist of dirt covering, with side ditches, the top surface being properly crowned and packed. Such roads give very good satisfaction in certain districts where the rainfall is very excessive, but it is impossible to prevent a certain amount of damage in time of freshets. The general plan being followed at present contemplates the macadamizing of all of these main roads, and this work has been completed in several districts.

On Oahu, Hawaii, and Maui the bridges in most instances are of the ordinary wooden-truss construction, although on Hawaii and Kauai there are several steel bridges exceeding 100 feet in length. As far as possible in future work concrete or stone arches will be installed where the span is not too great, as there is practically no expense in the maintenance of such structures, whereas the climatic conditions here materially affect the life of steel and wood, and there is a considerable yearly expense required in repainting.

Statement of expenditures of road funds for the various islands for the year ending June 30, 1904.

	Appropriation.	Road tax.	Total.
Island of Hawaii	\$103,295.85	\$29,582.35	\$132,878.20
Islands of Maui, Molokai, and Lanai.....	11,073.61	12,967.24	24,040.85
Island of Oahu	181,301.78	44,090.81	225,392.59
Islands of Kauai and Niihau	35,238.76	16,986.59	52,225.35
Total	330,910.00	103,626.99	434,536.99

WATER SUPPLY AND SYSTEMS.

The government at the present time has waterworks systems in Honolulu, Hilo, Wailuku, Lahaina, Koloa, Waimea, and Laupahoehoe, revenues from which amounted during the past year to \$118,443.47. Honolulu is supplied with mountain water from a gravity system, as well as artesian water pumped from the lower levels to the various distributing reservoirs. There are three pumping stations, situated in different sections of the city, having a daily capacity of about 10,000,000 gallons in twenty-four hours. There is no question but that a sufficient supply of mountain water can be obtained by development in Nuuanu and Kalihi valleys and the construction of additional reservoirs. This work has been taken up under the appropriations made in the loan fund, and two reservoirs are under construction in the outer districts, one at Diamond Head, Waikiki, and the other at Kalihi. The engineering department is making full investigation in regard to the proper selection of a site for the Nuuanu reservoir, which will have a capacity of approximately 100,000,000 gallons. With this reserve the city would be amply supplied with water under a sufficient head, so that there will be no necessity of using the pumping engines. The pipe system throughout the city will have to be rearranged, and new pipe is on hand now, so that this work will be taken up immediately. It is believed that when the supply is made entirely by gravity this will tend to lower the insurance rates, as there will be no danger of interruption on account of breakdowns to the pumps. On the other islands, gravity systems have been installed at Hilo, Lahaina, Wailuku and Kahului, Waimea, Koloa, and Laupahoehoe, and reservoirs of sufficient capacity constructed at elevations above the town so that in case of fire the water pressure is sufficient and engines are not required. In Hilo and Kahului, as well as Honolulu, fire hydrants have been installed, and while there is a paid force of firemen in Honolulu, the others are volunteer organizations.

LOAN MONEY EXPENDITURES.

The first installment of money acquired from the sale of Territorial bonds, amounting to \$1,000,000, becoming available on December 18, 1903, immediate steps were taken to complete the investigations necessary to carry out the appropriations under the loan bill, so that specifications could be prepared and tenders called for. Expenditures to date are \$505,036.78, although contracts have been made which are as yet uncompleted, amounting to \$850,000, leaving a balance of \$150,000.

DREDGING HONOLULU HARBOR.

Probably the most important undertaking, when the interests of the Territory at large are considered, is the dredging of the Honolulu Harbor and the extension of the present wharf system, and it is well to call attention at this time to improvements in the harbor itself, which have been carried out since annexation.

From July 1, 1900, to June 30, 1904, expenditure on this work has been as follows:

Dredging Honolulu Harbor	\$122,845.40
Harbor moorings and buoys.....	11,481.77
Harbor improvements	8,954.91
Total	143,282.08

This work, as well as the maintenance of the light-houses, to January 1, 1904, should properly have been undertaken by the Federal Government. The cost of the maintenance of light-houses for the above period was \$39,939.99.

WHARFAGE SYSTEM AND IMPROVEMENTS.

With large steamers stopping at this port it is of the utmost importance to have the harbor of sufficient depth and size so that they can be properly handled, and through boats will find it convenient to call at this port. The harbor of Honolulu is not large, but very safe and easy of entrance. It varies in depth from 24 to 34 feet, and estimates have been made with the idea of an average depth of 34 feet throughout, the cost of this work being estimated as follows:

Soft material required to be taken out in order to obtain average depth of 34 feet, 860,000 cubic yards; cost estimated at 30 cents per yard	\$258, 000
Material composed of loose and disintegrated coral on the two shoals just inside of the channel to bring depth to 34 feet, 500,000 cubic yards; cost estimated at 90 cents per yard	450, 000
Material on light-house spit, 60,000 cubic yards of coral, estimated cost at 90 cents per yard	54, 000
50,000 cubic yards of mud, estimated at 30 cents per yard	15, 000
Total cost of dredging to 34 feet	777, 000

Since annexation the increase in shipping has rendered the wharf facilities inadequate, and the Government being unable to move with sufficient dispatch, private enterprises took up this work and the Oahu Railway and Land Company have constructed wharves which are under private management.

The former superintendent of public works made comprehensive plans for improvements, and the last legislature made an appropriation of \$300,000 for the reorganization of the Honolulu wharf system, as well as \$50,000 for the dredging of the channel entrance to the harbor. This dredging has just been completed and provides a waterway not less than 34 feet below mean tide at any point. At the eastern end of the harbor, next to the naval reservation, it is proposed to cut a new slip sufficient in size and depth for the new trans-Pacific steamers. The plans as finally approved contemplate a slip 200 feet in width and 610 feet in length, with covered wharves on both sides. The wharf adjacent to the naval station will be 75 feet in width, and for the present will extend out to the end of the naval wharf, within 100 feet of the harbor line, as established by the War Department. The point of land on which the light-house is standing is directly opposite this wharf, and projects so far into the harbor that it would be impossible for large steamers to turn in coming out of the slip if the wharf were carried to the harbor line. It is to be hoped that immediate steps will be taken by the Federal Government to cut away this spit of land as well as dredge the harbor to a depth of 35 feet.

SEWERS AND DRAINAGE.

The appropriation as made in the loan bill for sewers, Honolulu, amounting to \$80,000, has been expended, and the entire system as planned by Mr. Hering, with the exception of a small district in Nuuanu Valley, between Liliha and Nuuanu streets, from Kuakini to

Wyllie, completed. No provisions have been made for the Kakaako district, as a large portion of the land is below sea level, and sufficient slope can not be given to the pipes without the installation of an additional sewerage pumping station.

Work has also been carried on in connection with the system of storm sewers and drains under the appropriation in the loan fund of \$20,000. The location of the Honolulu roads and the surrounding country is such that great difficulty is found in taking care of storm water during the rainy season, and considerable damage is done to the streets where suitable provisions have not been made for storm sewers. Further additions to this system are required, and perhaps that work can be taken up after the legislature has met.

Plans for a sanitary sewer in Hilo have been prepared, but the appropriation of \$10,000 is entirely insufficient to properly carry out this work, and it is evident that it would be preferable to await a further appropriation from the legislature so that this system could be completed at one time.

GARBAGE AND CREAMATORY.

The Government maintains a garbage department in Honolulu, and during the past year the expenses have amounted to \$48,595.48, whereas the receipts were \$12,080.25.

A crematory was purchased several years ago, but funds were not provided at the time to cover the cost of erection. This work is now progressing satisfactorily, and should be completed about December 1. With this plant in operation, there will be a material saving in the cost of the disposal of garbage, as a large amount of it is now dumped at sea.

SCHOOL BUILDINGS CONSTRUCTED.

A large number of school buildings have been constructed on the various islands of the group, at an expense of \$92,827.90, as follows: Maui, 3 school buildings, 1 teacher's cottage; Oahu, 6 school buildings, 5 teachers' cottages; Hawaii, 4 school buildings, 4 teachers' cottages; Kauai, 3 school buildings; Molokai, 2 school buildings.

Of these the most important are the Royal school in Honolulu, which is a two-story brick building with cement outside finish; the school at Wailuku, Maui, which is constructed of stone; the Lahaina-luna school buildings, which also embrace dormitories for the boys living there; and the Lihue school, Kauai, the latter being a frame building of neat construction. The plans for the new normal school, Honolulu, have been prepared and contract for this work will be awarded very soon.

OTHER PUBLIC BUILDINGS.

The new dispensary for Honolulu was completed about the first of the year, and is of concrete construction throughout with the exception of the interior walls. Judging by reports received from the board of health, this building has proven most satisfactory as a dispensary and chemical laboratory. The present morgue, located in the rear of the dispensary, is a frame building, and is not suitable for the requirements of the board of health. It is strongly recommended

that a concrete building be erected and that it be made sanitary throughout.

The fireproof laboratory at the Federal experimental station is of concrete construction, and will be completed in about one month's time, as well as the residence for chemist at this station, which is a two-story wooden building.

The cottage for the superintendent of the insane asylum has been completed and is now occupied. It is of artistic design, and will be in keeping with the general character of the new buildings for the insane, for which plans have been prepared and tenders submitted. These buildings will be of concrete block construction, these blocks being subject to heavy pressure so that there will be no possibility of any absorption of moisture. They are designed with an air space so that proper circulation of air is obtained in all of the rooms. The inside finish will be in white enamel, and this will permit of the walls being washed frequently and everything kept in the best sanitary condition. There will be separate buildings for the men and women, also outside kitchen and bath houses.

OTHER NECESSARY IMPROVEMENTS.

Further work under the loan appropriation is being taken up as fast as specifications are prepared, and these contemplate the construction of a large number of new roads throughout the islands as well as additional court-houses and school buildings.

Appropriations were made for wharves at Lahaina and Kahului, and the former will probably be constructed during the latter part of this year. The harbors at these places are not well protected, being more in the nature of open roadsteads, and in stormy weather the anchorage is unsafe. Large steamers engaged in carrying sugar to the coast enter these ports as well as Honolulu. Recommendations for extensive breakwaters have been made to the legislature, but no money has been appropriated for this work. It is to be hoped that the Federal Government will appreciate the necessity of carrying out these improvements in order that the large shipping interests concerned may have proper protection. The small steamers call at numerous ports on the various islands, but the landing of freight and passengers is made by means of shore boats, the depth of water at the wharves not being sufficient for steamers to run alongside. In most instances the expense of building these wharves out to deep water would not be warranted by the amount of freight handled.

The following table shows the various amounts expended and unexpended from the loan fund that were authorized by the legislature and for which contracts had been let on June 30, 1904:

LOAN.

	Expended.	Unexpended.
Reorganization of the wharf system, Honolulu	\$60,415.97	\$239,584.03
Wharf and landing, Pukoo, Molokai	69.00	4,931.00
Dredging Honolulu Harbor and deepening bar	46,883.75	3,116.25
New jail, Oahu	7,508.47	12,491.53
New insane asylum, Oahu	5,197.60	69,802.40
New dispensary, Honolulu	8,000.00	.....
Purchase of lots, electric-light station, Nuuanu Valley	6,000.00	.....
Schoolhouses and teachers' cottages, island of Oahu	60,601.06	94,798.94

LOAN—Continued.

	Expended.	Unexpended.
Schoolhouses and teachers' cottages, island of Hawaii	\$9,540.25	\$81,459.75
Schoolhouses and teachers' cottages, islands of Maui, Molokai, and Lanai ..	14,468.29	70,531.71
Schoolhouses and teachers' cottages, island of Kauai	7,822.13	19,177.87
Fireproof building for the preservation of the government archives	2,100.00	72,900.00
Fireproof laboratory, library, and office building for Federal experiment station	65.00	2,955.00
Residence for chemist, Federal experiment station	60.00	1,440.00
Armory, Honolulu	1,050.00	28,950.00
Armory, Wailuku	41.00	4,959.00
Armory, Hilo	41.00	4,959.00
Wharf at Kawaihae and approach thereto	100.00	3,400.00
<i>County of east Hawaii or districts of Hamakua, north Hilo, south Hilo, and Puna.</i>		
<i>Puna:</i>		
Road from Halepuua to Kanihiku	209.75	5,790.25
Road between 21½ and 22 miles, Volcano road	520.45	7,479.55
Hamakua:		
Relocating and constructing 4 miles of road between Ookala and Kukaian ..	166.00	14,834.00
<i>South Hilo:</i>		
Kaumana Homestead roads, including McFarlane road	5.00	9,995.00
Sewerage system	302.85	9,697.15
<i>County of West Hawaii or districts of North Kohala, South Kohala, North Kona, South Kona, East Kau, and West Kau.</i>		
Court-house, jail, jailer's house, and water tank at Hookena and Kauhako, upper Government road	16.50	2,983.50
Water supply to Waimea Village, Hawaii	268.30	9,731.70
New road from Kailua to join Keauhou road at Kahaluu	357.95	9,642.05
Road from Pahala to Volcano House, or so much thereof as may be necessary to complete contract	4,848.40	20,151.60
<i>County of Maui or islands of Maui, Lanai, and Kahoolawe.</i>		
Road Nahiku to Kailua	161.84	39,838.16
Pualuu to Muolea	24.00	9,976.00
Completion Kula Homestead road	33.65	3,966.35
Relocating and constructing new road from Peahi to Kailua, Hamakualoa, Maui	154.00	12,846.00
Bridge across Maliko Gulch at Kaluanui	20.19	1,979.81
Road Puuhele to Kihei	91.75	3,908.25
Relocating and reconstructing road and bridges, Wailuku to Iao	139.20	9,860.80
<i>Oahu County or island of Oahu.</i>		
Garbage crematory	276.26	9,723.74
Sewerage	63,054.56	16,945.44
Outfall sewer	18.00	19,982.00
Storm sewers and drains	12,118.89	7,881.11
Nuuanu reservoir No. 4	18.34	74,981.66
For the purchase of the Pahoa waterworks, including pumping plant, artesian wells, reservoir, tanks, 1½ acres of land, pipe lines, and all necessary right of way	75,000.00	
Kalihi reservoir	545.81	49,454.19
Diamond Head reservoir	5,994.00	2,006.00
Cast-iron pipe for the waterworks department, Honolulu	88,834.02	51,741.85
Fourth district stables	135.50	7,364.50
Fifth district stables	338.94	7,161.06
District of Waialua:		
Steel or concrete bridge at Kaupoo	21.00	8,979.00
Steel or concrete bridge, Kaukonahua	2.64	3,997.36
District of Ewa and Waianae:		
Bridges, approaches, and abutments	216.89	24,783.11
Road, Kipapa and Waikakalaua gulches	550.98	9,449.02
<i>Honolulu:</i>		
Fort street extension and purchasing right of way	2,348.91	17,651.09
Pauahi street extension and purchasing right of way	1,436.75	3,563.25
School street extension and purchase of right of way from Liliha street to Kamehameha IV road, opposite Markhams Lane	5,007.55	54,992.45
Queen street extension and purchasing right of way	8,966.18	11,033.82
<i>County of Kauai or islands of Kauai and Niihau.</i>		
Landings and buoys	2,868.21	5,131.79

COLLECTIONS BY PUBLIC WORKS DEPARTMENT.

The following statement shows the amounts and sources of collections by the department of public works for the twelve months ending June 30, 1904:

Garbage	\$7,512.75
Rents	42,433.34
Sewerage	6,767.26
Excavator	4,567.50
Land sales	2,241.14
Weights and measures	100.10
Market	10,851.50
Government realizations	13,380.17
Total	87,853.76

Detailed statement of government realizations, July 1, 1903, to June 30, 1904.

Fees:		
Building permits	\$685.00	
Cemetery gate receipts	189.00	
Registry of brands	4.00	
		\$878.00
Sales:		
Old lumber, etc	511.35	
Old building, etc	285.50	
Sundry materials	12.10	
Macadam and sweepings	71.90	
Piles	67.05	
Auction, Kalihi Camp, wharf shed, mules, etc ..	6,997.00	
Blueprints	4.00	
Pilot boat	60.00	
Old iron	195.00	
Wood, etc	26.00	
Copper	78.40	
Empty sacks	22.50	
		8,330.80
Sundries:		
I. O. U's on B. H. Wright shortage	300.00	
Damage to Dolphin	139.17	
Pounds, government	90.15	
Use of steam roller	46.75	
Use of diving gear	25.00	
Hawaiian Electric Company, 2½ per cent on \$142,812.01, gross earnings to May 31, 1904	3,570.30	
		4,171.37
Total		13,380.17

SEWERAGE.

The following shows the collections of rates and fees of the Honolulu sewerage system from July 1, 1903, to June 30, 1904:

Rates	\$6,532.26
Application fees	235.00
Total	6,767.26

WEIGHTS AND MEASURES.

For the twelve months ending June 30, 1904, the following number of scales and measures have been tested, adjusted, and stamped, viz:

Counter and spring-balance scales	53
Counter platform scales	53
Union platform scales	7
Portable scale	1
Beam scale	1
Balance scales	10
Twenty-ton scale	1
Liquid measures	7

Statement of receipts, by bureaus, of the department of public works from July 1, 1903, to June 30, 1904.

Harbor master:	
Honolulu	\$66, 210. 73
Hilo	2, 260. 67
Kahului	2, 711. 25
Powder magazine:	
Honolulu	1, 680. 75
Hilo	307. 30
Kerosene warehouse:	
Honolulu	4, 484. 65
Hilo	277. 95
Waterworks:	
Honolulu	103, 316. 02
Hilo	6, 965. 75
Laupahoehoe	126. 05
Wailuku and Kahului	4, 497. 80
Lahaina	2, 854. 80
Koloa	190. 00
Waimea	483. 05
Total	196, 366. 77

FINANCES.

By A. J. CAMPBELL.

Under the treasury department of the Territory of Hawaii are included the treasury proper and the bureau of taxes, conveyances, and insurance.

The treasury proper is organized as follows, viz:

	Annual salary.
A treasurer	\$3, 600. 00
A registrar (assistant treasurer)	3, 000. 00
Bookkeeper and deputy insurance commissioner	2, 400. 00
License clerk	1, 500. 00
Assistant clerks and stenographer	1, 860. 00

Formerly this department undertook much of the bookkeeping work of the government, but the audit act, passed May 24, 1898, provided that the audit department be the accounting department, and this office now confines its accounts to a cash book and a limited number of special accounts which do not appear in the auditor's books.

Government officials in all parts of the Territory remit to this office and also send statements of such remittances to the audit department and receive from this office a receipt, countersigned by the auditor, for such remittances.

BUREAU OF TAXES.

The Territory is divided into four divisions for the assessing and collection of taxes, and there is an assessor and collector of taxes for each division appointed by the treasurer, by and with the approval of the governor. Each assessor is supplied with deputy assessors and assistants sufficient to properly assess and collect the taxes of his division.

The annual salaries of the assessors are:

Assessor first division, Island of Oahu	\$2, 700
Assessor second division, Islands of Maui, Molokai, and Lanai.....	2, 100
Assessor third division, Island of Hawaii.....	2, 400
Assessor fourth division, Island of Kauai.....	1, 800

It is the duty of these officials to make assessments and collect the taxes, remitting to the treasury daily from the Island of Oahu and weekly from the other divisions.

All property is assessed as of January 1 of each year at as near its actual cash value as possible, and the tax is 1 per cent on the total assessed value after deducting an exemption of \$300 from such assessed value.

Before July 1 any taxpayer whose return has been changed in any way by the assessor is notified of such change, and if not satisfied with the change he has until the 20th of July to note an appeal to the tax appeal court, which sits from the 1st to the 20th of August.

The assessment books are ready for inspection from the 1st to the 15th of July.

Incomes are annually assessed as of July 1, and the tax is 2 per cent of the net income after deducting an exemption of \$1,000.

All property and income taxes are due September 1 and delinquent November 15.

Every male inhabitant of the Territory between the ages of 20 and 60 is required to pay poll, road, and school taxes amounting to \$5, which are due January 1 and delinquent April 1. The amount of this road tax for each district of each division is held in the treasury as a special deposit, to be used under the supervision of the road board of the district where collected and on roads in that district only.

BUREAU OF CONVEYANCES.

This office is maintained for the purpose of recording all documents. Mr. C. H. Merriam is in charge of this office, with a salary of \$2,100 per annum, and six assistants under him.

Records are kept in fireproof vaults, thoroughly indexed, and date back to 1845. Lately the card system of indexing has been installed in this office.

INSURANCE.

Formerly any taxing of insurance companies was done by the tax assessor, but the 1903 session of the legislature passed an insurance law, modeled after the insurance laws of many States, which provides that each licensed company pay to the Territory a tax of 2 per cent on its net income. It also provides that a company which is not financially sound shall not do business in the Territory, and authorizes the insurance commissioner to revoke the license of any company whose capital becomes impaired.

BUBONIC PLAGUE.

At the opening of the year 1900 the Hawaiian treasury had on hand a surplus of current cash amounting to \$1,531,784.29, but unfortunately an epidemic of plague broke out and the care of the quarantined and other expenses involved the Territory in a very heavy outlay. Business was paralyzed and a vigorous attempt was made to stamp out this epidemic by the burning of buildings and destruction of all infected properties.

On January 20, 1900, while burning an infected building, owing to a change of wind, the fire got beyond control of the fire department and burned out about 25 acres of the most thickly populated portion of the city. The estimated loss was about \$4,000,000, and fell for the most part on those who could least afford it. It was indirectly caused by the burning of an infected building which was destroyed for the benefit of the whole community. Under these conditions the consensus of opinion was that the loss should be stood by the entire people.

With the approval of President McKinley a commission was appointed to adjudicate the claims made by these losers, but as there was some doubt about the legality of appointing a commission without authority of the legislature, this commission took no action.

On June 14, 1900, the organic act went into effect. This precluded the possibility of the Territory issuing bonds to pay these claims. The next session of the legislature provided for a commission and made partial provision for the payment of these claims. This commission met and awards were made amounting to \$1,473,173, which sum was about one-half the actual loss. An appeal was made to Congress and an act was passed by that body providing for the payment from the Federal Treasury of \$1,000,000 and authorizing the Territory to issue 4 per cent 5-15 bonds to the amount of \$326,000. According to the terms of this act, \$315,000 of these bonds were issued and sold to claimants at par.

On June 30, 1904, all claims were paid but \$13,448.83, and there was held in the treasury to meet these \$14,182.96.

This excess will revert to current cash after the final settlement of all claims.

FIRST ISSUE OF TERRITORIAL PUBLIC-IMPROVEMENT BONDS.

The organic act provides as follows:
Portion of section 55:

Nor shall the government of the Territory of Hawaii, or any political or municipal corporation or subdivision of the Territory, make any subscription to the capital stock of any incorporated company, or in any manner lend its credit for the use thereof; nor shall any debt be authorized to be contracted by or on behalf of the Territory, or any political or municipal subdivision thereof, except to pay the interest upon the existing indebtedness, to suppress insurrection, or to provide for the common defence, except that in addition to any indebtedness created for such purposes the legislature may authorize loans by the Territory, or any subdivision thereof, for the erection of penal, charitable, and educational institutions, and for public buildings, wharves, roads, and harbor improvements, but the total of such indebtedness incurred in any one year by the Territory or any subdivision shall not exceed one per centum upon the assessed value of taxable property of the Territory or subdivision thereof, as the case may be, as shown by the last general assessment for taxation, and the total indebtedness for the Territory shall not at any time be extended beyond seven per centum of such assessed value, and the total indebtedness of any subdivision shall not at any time be extended beyond three per centum of such

assessed value, but nothing in this provision shall prevent the refunding of any existing indebtedness at any time; nor shall any such loan be made upon the credit of the public domain or any part thereof, nor shall any bond or other instrument of any such indebtedness be issued unless made redeemable in not more than five years and payable in not more than fifteen years from the date of the issue thereof; nor shall any such bond or indebtedness be incurred until approved by the President of the United States.

And act 42 of the 1903 session laws of the Territorial legislature provides as follows:

ACT 42.—AN ACT to provide for public loans.

Whereas to meet the requirements of the Territory for the erection and improvement of public buildings and educational institutions, and for wharves, roads, harbor, and other public improvements, it will be necessary to effect loans from time to time by means of the issue of bonds, and

Whereas it is necessary that all loans to be effected hereafter should be effected, and that the bonds to be issued therefor should be issued, in conformity with the act of Congress providing a government for the Territory of Hawaii, approved April 30th, A. D. 1900, and that the authority to effect such loans and issue bonds in respect thereof should be given in a uniform manner,

Now, therefore, for the carrying out of the purposes above mentioned,

Be it enacted by the legislature of the Territory of Hawaii:

SECTION 1. That the treasurer of the Territory is hereby authorized and empowered, with the approval of the governor, to issue from time to time bonds of the Territory of Hawaii, with interest coupons attached thereto, to an amount not exceeding five million dollars, the principal and interest to be paid in gold coin of the United States of America, or its equivalent at its present standard of weight and fineness, in the manner, upon the terms, and for the purposes in this act stated.

SEC. 2. No such bonds shall be issued except in pursuance of an act of the legislature defining the purposes for which the same are to be issued, nor until approved by the President.

SEC. 3. All bonds issued under the authority of this act shall bear interest, payable semiannually, at a rate of not more than five per cent per annum, and be made redeemable in five years and payable in fifteen years from the date of issue thereof.

SEC. 4. All such bonds shall be exempt from any and all taxes whatsoever, and the payment of the principal and interest thereof shall constitute a charge upon the consolidated revenues of the Territory.

SEC. 5. The proceeds of the bonds so issued shall be exclusively devoted to the purposes for which the same are issued, as expressed in act of the legislature under which the issue of the bonds is authorized.

SEC. 6. The treasurer of the Territory may, with the approval of the governor, determine the denominations of such bonds to be issued under the authority of this act, and the place in which the principal and interest of such bonds, or any of them, shall be payable, and the method of their redemption. He may make such arrangements as may be necessary or proper for the sale of the whole or any part of each authorized issue. Such arrangements shall provide for the sale of such bonds by the government itself, by public advertisement for tenders, but no bonds shall be issued at less than 2 per cent below their nominal par value; and no indebtedness shall be incurred in any one year which shall exceed one per centum upon the assessed value of the taxable property of the Territory, as shown by the last general assessment for taxation.

SEC. 7. All bonds issued under the provisions of this act shall be lithographed or steel engraved, and shall be signed by the treasurer of the Territory and by the registrar of public accounts, and be sealed with the seal of the office of the treasurer. Interest coupons shall bear a lithographed or engraved facsimile of the signature of the treasurer of the Territory.

SEC. 8. This act shall take effect and become law from and after the date of its approval.

Approved this 25th day of April, 1903.

SANFORD B. DOLE,
Governor of the Territory of Hawaii.

Under the above provisions the previous administration sent a representative to New York to negotiate the sale of \$1,000,000 worth of bonds. Arrangements were made by this representative with the United States Mortgage and Trust Company, 59 Cedar street, New

York, for the engraving and issuing of the bonds, where certified copies of the laws affecting their issue, a statement of Judge Dillon in regard to their legality, and the authentic signatures of the officials are held for public inspection.

The bonds were advertised in compliance with law and the following bids were received:

From Fisk & Robinson, New York, entire issue	\$1,000,626
From Union City Bank, New York, entire issue.....	996,261
From Hawaiian Investment Company, Honolulu, entire issue.....	996,025

Fisk & Robinson were awarded the bonds at \$1,000,626.

FINANCIAL CONDITION.

Owing to the excess of expenditures over the income and the transfer of \$699,000 from current cash to loan fund to pay balance due on appropriations made by the 1898 session of the legislature from an authorized loan of \$2,000,000, and on which only \$1,201,000 had been secured prior to annexation, and the expenses incurred in the suppression of the bubonic plague amounting to \$648,348.29, the \$1,531,784.29 surplus on hand at the beginning of 1900 had been used, and the present administration, in December last, found itself short of current cash with which to meet its obligations. On the statute books was the following law, by which it was thought a temporary arrangement for a floating indebtedness could be made:

[Act 49, session laws, 1898, as amended by act 11, session laws, 1904.]

AN ACT to further provide for the payment of current accounts.

Whereas it is expedient that authority should be given to the minister of finance (treasurer) to secure funds temporarily on loan by way of a bank overdraft; now, therefore,

Be it enacted by the legislature of the Territory of Hawaii:

SECTION 1. The treasurer, with the approval of the governor, is authorized during each biennial period to open a bank account, or bank accounts, in the name of the government of the Territory of Hawaii, with any bank or banks or financial institution carrying on business in Honolulu, and, from time to time, during each such period, to receive on loan, by way of overdraft on such account or accounts, such sums of money, not to exceed in the aggregate \$500,000 at any one time, as the said treasurer and the said governor may deem necessary to meet the current expenses of the said government.

SEC. 2. The moneys borrowed by authority of this act shall be repayable by the minister of finance (treasurer) upon his tender of the same, together with interest not exceeding six per cent per annum in gold coin of the United States of America.

SEC. 3. No money shall be obtained on such account or accounts except by draft of the treasurer, countersigned by the auditor and approved by the governor.

SEC. 4. All moneys received under the authority of this act shall be paid out and used only for the current expenses under appropriations made by the legislature, as aforesaid, of the government, and such moneys shall be repayable, and the interest thereon shall be paid out of the current revenue of the government as provided by the legislature.

SEC. 5. This act shall take effect upon date of its approval.

Approved this 19th day of April, A. D. 1904.

G. R. CARTER,
Governor of the Territory of Hawaii.

In a general consultation, there being some question as to whether this law was in conflict with the organic act, it was decided that the safest course would be to have the Territory avail itself of the provisions of section 26 of the audit act, which provides for the registration of treasury warrants. This was the first time that all government obligations, whether for labor or supplies, had to be registered,

and it created some friction, causing a loss to government employees, as the warrants are discounted at from 2 per cent up.

In April the legislature met in special session and made new appropriations within the estimated income. If these are maintained, and provision can be made to have the taxes paid semiannually instead of annually, this difficulty will be modified, but not entirely avoided.

The revised statutes covering Territories make provisions for Territories to borrow in order to tide over temporary shortages, and if Congress could be induced to pass an act specifically allowing this, it would remove all doubt, putting the treasurer in a position, by the payment of interest on temporary loans, to meet all warrants with cash and relieve the individual of the loss incurred through discounting his registered warrants.

BONDED DEBT.

On June 30, 1904, the bonded indebtedness of the Territory was..... \$2, 185, 000. 00
(\$498,379.53 of this amount was on hand to pay for pending contracts.)

Floating indebtedness	\$720, 093. 99	
Current cash on hand	56, 613. 29	
		663, 480. 70

Total net indebtedness.....	2, 848, 480. 70
-----------------------------	-----------------

The following bonds of the Monarchy and Republic of Hawaii were assumed by the Territory of Hawaii:

Monarchy:

Loan act October 15, 1886, 6 per cent 5-20 bonds.....	\$2, 000, 000. 00
Loan act August 15, 1888, 6 per cent 5-20 bonds.....	190, 000. 00
Loan act October 25, 1890, 6 per cent 5-20 bonds.....	15, 000. 00
Loan act September 7, 1892, 6 per cent 5-20 bonds.....	69, 200. 00
Loan act September 7, 1892, 5 per cent 5-20 bonds.....	50, 200. 00
Loan act September 7, 1892, 4½ per cent 5-20 bonds.....	11, 000. 00
Loan act January 11, and February 18, 1893, 6 per cent 5-20 bonds..	650, 000. 00

2, 985, 400. 00

Republic of Hawaii:

Loan act June 13, 1896, 5 per cent 5-20 bonds.....	1, 201, 000. 00
----------------------------------------------------	-----------------

Total bonded debt assumed.....	4, 186, 400. 00
--------------------------------	-----------------

The postal savings bank indebtedness.....	764, 570. 31
-------------------------------------------	--------------

Making a total indebtedness at the time of annexation.....	4, 950, 970. 31
------------------------------------------------------------	-----------------

The Federal Government paid.....	3, 999, 970. 31
----------------------------------	-----------------

Leaving the Territory with a bonded obligation at the commencement of its career.....	951, 000. 00
---------------------------------------------------------------------------------------	--------------

Since which time it has increased its bonded indebtedness by issuing by act of Congress:

4 per cent 5-15 fire claims bonds amounting to.....	315, 000. 00
4½ per cent 5-15 public improvement bonds amounting to.....	1, 000, 000. 00

Total.....	2, 266, 000. 00
------------	-----------------

And decreased the bonded indebtedness by receipts from land sales.....	\$75, 000. 00
------------------------------------------------------------------------	---------------

Premiums accrued in settlement of some bonds assumed by the Federal Government.....	6, 000. 00
-------------------------------------------------------------------------------------	------------

81, 000. 00

Leaving a net bonded indebtedness on June 30, 1904, of.....	2, 185, 000. 00
-------------------------------------------------------------	-----------------

The proceeds from the sale of public lands are applied to the payment of bonds and during the year ending June 30, 1904, bonds were paid amounting to \$56,000.

A statement of this special deposit is as follows:

Statement of land sales, special deposit, July 1, 1903, to June 30, 1904.

Cash balance July 1, 1903.....	\$46,749.31
Proceeds of land sales received from commissioner of public lands....	18,962.42
Total.....	65,711.73
Hawaiian government 5 per cent coupon bonds paid as provided by law as follows: Loan act of June 13, 1896, bonds Nos. 116 to 171, inclusive, at \$1,000 each.....	56,000.00
Balance July 1, 1904.....	9,711.73

A detailed statement of the actual bonds outstanding is as follows, all others having been canceled:

Fire-claims bonds (issued by act of Congress approved January 26, 1903; interest at 4 per cent per annum, payable semiannually; bonds redeemable in 5 years and payable in 15 years from May 1, 1903).....	^a \$315,000.00
Public improvement 4½ per cent bonds (issued by authority of act of the legislature of the Territory of Hawaii, approved April 25, 1903, and approved by the President of the United States; interest payable semiannually; bonds redeemable in 5 years and payable in 15 years from October 1, 1903).....	^b 1,000,000.00
Loan act June 13, 1896 (outstanding) (issued by authority of act of the legislature of the Republic of Hawaii, approved June 13, 1896; interest at 5 per cent per annum, payable semiannually; bonds redeemable in 5 years and payable in 20 years from July 1, 1896).....	870,000.00
Total bonded debt July 1, 1904.....	2,185,000.00

STATEMENT OF FIRE CLAIMS.

Oct. 15, 1902. Cash received as reimbursement from the United States Government for accrued interest paid on Hawaiian government bonds from date of annexation to date of payment of bonds.....	\$140,000.00
Oct. 15, 1902. Transferred from current cash.....	7,317.30
June 15, 1904. Balance of interest on bonds assumed by the United States Government as above.....	11,589.83
Sale of fire-claims bonds at par.....	315,000.00
Claims paid by United States Government.....	1,000,000.00
	1,473,907.13
Total claims paid by the United States Government...	\$1,000,000.00
Total warrants paid by the Territory up to June 30, 1904.....	459,724.17
Outstanding warrants June 30, 1904.....	13,448.83
Total fire-claims awards.....	1,473,173.00
Balance to credit of fire-claims fund.....	734.13

TAXABLE PROPERTY.

The assessed valuation of real and personal property in the Territory for 1903 was \$129,812,682, and the tax on this, together with the specific taxes, licenses, wharfage, water rates, rents from public lands, etc., are available for the payment of appropriations made by the legislature.

^a Total authorized issue, \$326,000; total required and issued, \$315,000.

^b Total authorized issue (to be approved by the President of the United States), \$5,000,000.

If all the moneys appropriated by the last session of the legislature for the year ending June 30, 1905, are expended and the contracts carried over from last period completed and paid, the estimated income for the same period will exceed the expenditures by \$232,976.26.

Assessable values of real estate and personal properties of the Territory of Hawaii for the year 1903.

	Real estate.	Personal property.
First taxation division.....	\$34,553,304	\$38,547,182
Second taxation division.....	10,039,514	5,389,519
Third taxation division.....	16,135,131	13,342,340
Fourth taxation division.....	5,409,126	6,396,566
Total for the Territory.....	66,137,075	63,675,607

FOREIGN CORPORATIONS.

The legislature of 1898 passed a foreign-corporation law and repealed all previous existing laws on that subject. The legislature of 1903 amended that law. The main condition of the 1898 law was that these corporations file their papers and pay a filing fee of \$50. This law has been partly enforced, but many foreign corporations have not filed their papers, and none has fulfilled the condition of the 1903 amendment, which required them, in addition to filing their papers, to pay an annual license fee of one-fourth of a mill on each dollar of authorized capital, and such license fee in no case to be less than \$150.

Up to date most of these corporations have filed their papers, and licenses to the amount of \$1,750 have been collected. One company, "The Pacific Hardware and Steel Company," was brought into court, and in the circuit court the decision was in favor of the corporation, on the ground that their agent was a traveling man and his method of doing business, selling from samples only, was decided to be interstate commerce.

This case has been appealed to the Territorial supreme court. Several other suits are now pending on this same law, but as each one presents a little different phase, each has to be fought out by itself.

Franchises granted by this government and the capitalized value of the companies operating under them.

[Franchises granted since annexation require the approval of the United States Congress.]

FRANCHISES.

	Present capital.
Hawaiian Tramways Company (foreign corporation).....	\$325,000.00
(Franchise granted for 30 years from Aug. 29, 1884, Chap. XXXIV, Session Laws of 1884, reenacted by Chap. XVIII, Session Laws of 1886. Franchise for 30 years from Sept. 19, 1886.)	
Oahu Railway and Land Company.....	4,000,000.00
(Franchise granted for 20 years from Sept. 11, 1888, Chap. LXII, Session Laws of 1888, reenacted by Chap. XXXI, Session Laws of 1890. Franchise for 50 years from Sept. 15, 1890.)	
Hawaiian Electric Light Company.....	500,000.00
(Franchise granted for 10 years from May 23, 1893. New franchise granted by the legislature of the Territory of Hawaii, Session Laws of 1903, approved Apr. 28, 1903, for 35 years and approved by United States Congress Apr. 21, 1904.)	

	Present capital.
Honolulu Rapid Transit and Land Company	\$1,000,000.00
(Franchise granted for 30 years by legislature of the Republic of Hawaii, Session Laws of 1898, approved July 7, 1898. Approved by United States Congress June 25, 1900.)	
Honolulu Gas Company (Limited)	200,000.00
(Franchise granted for 35 years by the legislature of the Territory of Hawaii, Session Laws of 1903, approved Apr. 15, 1903, and approved by United States Congress Apr. 21, 1904.)	
Franchise to maintain and operate a railroad in Kauai	
(Franchise granted for 30 years by the legislature of the Territory of Hawaii, Session Laws of 1903, approved Apr. 25, 1903. Not yet approved by Congress.)	

FRANCHISES GRANTED, NOT IN EXISTENCE, CONDITIONS BROKEN.

Franchise to Hamakua Water Company. (Franchise granted for 50 years by act of the legislature, Session Laws of 1890, approved November 14, 1890.)

Franchise to the Hawaiian Gas Company. (Franchise granted for 25 years by act of the legislature, Session Laws of 1890, approved November 14, 1890.)

Appropriations for legislative expenses from 1870 to 1903.

UNDER THE MONARCHY.

Session of—

1870	\$15,000.00
1872	15,000.00
1874	16,362.15
1876	21,500.00
1878	16,500.00
1880	20,000.00
1882	
1884	40,000.00
1886	50,000.00
1887 (special)	10,000.00
1888	25,000.00
1890	35,000.00
1892 (lasting seven or eight months)	42,000.00

UNDER THE REPUBLIC OF HAWAII.

Session of—

1895 (special)	\$15,000.00
1896	26,300.00
1898 (actual expenses, \$28,562.14)	35,000.00

UNDER THE TERRITORY OF HAWAII.

Session of—

1901 (actual expenses, \$94,654.94)	\$94,666.00
1903 (actual expenses, \$84,611.24)	87,471.30

Expenses of the legislature, special session, 1904.

Appropriation for "Expenses of the house of representatives of the legislature of the Territory of Hawaii in the special A. D. 1904 session"

Expenditure:

Warrants drawn	\$9,795.59
Less the following warrants drawn contrary to the provisions of the appropriation bill—	
John H. Wise	\$240.80
Solomon Meheula	585.00
Paradise of the Pacific	634.20
D. H. Kahaulelio	105.84
W. J. Coelho	458.60
Enoch Johnson	240.80
Hawaiian News	21.25
	<hr/> 2,286.49

Total

7,509.10

Balance of appropriation for house of representatives

2,490.90

Appropriation for "Expenses of the senate in the special session of the legislature of the Territory of Hawaii of the year 1904"..... \$5,000.00

Expenditure:

Warrants drawn	\$3,988.58	
Less the following warrants returned to the gov- ernment by the recipients because they did not serve during the session—		
Cecil Brown	\$200.00	
H. P. Baldwin	200.00	
Do	18.00	
	<hr/>	418.00
		<hr/>
		3,570.58
Balance of appropriation for the senate		1,429.42
Balance unexpended		<hr/>
		3,920.32

Receipts and expenditures Territory of Hawaii, July 1, 1903, to June 30, 1904.

RECEIPTS.

General taxes	\$1,566,393.49
Road tax	114,806.00
Land sales	18,962.42
Licenses	131,355.00
Water receipts	118,433.47
Sundries (including inheritance tax, \$70)	465,405.95
	<hr/>
Total revenue receipts	2,415,356.33
Treasury notes	145,000.00
Cash balance July 1, 1903	73,181.63
	<hr/>
Total	2,633,537.96

EXPENSES.

Outstanding warrants July 1, 1903	\$240,713.42
Departmental expenses July 1, 1903, to June 30, 1904	2,658,458.41
Interest on public debt, commission, and expenses	85,811.69
Interest on treasury notes	2,300.00
Interest on registered treasury warrants	8,719.68
Balance of expenses of legislature, 1903	11,167.36
Expenses of legislature, special session, 1904	11,079.68
Transferred to "Road tax," special deposit	114,806.00
Transferred to "Land sales," special deposit	18,962.42
Treasury notes paid	145,000.00
	<hr/>
	3,297,018.66
	<hr/>
Excess of expenses over the receipts	663,480.70
Outstanding auditor's warrants July 1, 1904	\$709,014.31
Outstanding legislature warrants	11,079.68
Cash balance July 1, 1904	56,613.29
	<hr/>
Total	720,093.99
	<hr/>
	720,093.99

THE AUDITING DEPARTMENT.

By J. H. FISHER.

The auditing department in its present shape was established by the passage of act 39, Session Laws of 1898 of the legislature of the Republic of Hawaii, by which it was intended to be the general bookkeeping and accounting department of the government. In furtherance of this idea double-entry books are being kept in which are shown all of the receipts and expenditures of the Territory under their appropriate headings.

All officials of the government who receive public moneys in any sums whatever are classed as public accountants, and as such are required to pay weekly, or at such other times as may be specially appointed, into the treasury all sums received by them. In return they receive two receipts signed by the treasurer, one of which is stamped across its face "original," and the other "duplicate." These are of no value until presented to the auditor, who countersigns the original and files the duplicate after writing across its face the date of receipt by him. This duplicate receipt is the authority of the auditor for charging the treasurer and crediting the proper account for the amount deposited.

All public accountants are required, not later than the 10th of the following month, to transmit to the auditor a sworn statement, on a form known as Schedule E, of all moneys received by them during the previous month.

Excepting moneys paid for the redemption of government bonds and the interest or coupons on the same, and for interest on overdue or registered warrants, drafts against "special deposits," and for expenses of the legislature, no money is paid out by the treasurer except upon warrants drawn by the auditor and made payable to the order of the parties to whom the government is directly indebted.

Permanent settlements and specific salaries are paid by warrants drawn by the auditor on the approval of the heads of departments, and a receipt for the specific salary is taken therefor bearing the number of the warrant by which it is paid.

Purchases for the government are made by proper department employees on the approval of the department chief, bills for the same being rendered on the voucher forms supplied by the Territory, and are certified by the government officer receiving the same, and approved by the heads of departments. These vouchers are grouped together according to appropriations and sent to the auditor by the 10th of each month.

Payments are made by the auditor drawing warrants for each voucher, stamping the same with the warrant number, and delivering the warrant on obtaining receipt to the voucher.

Payments under contract are made in the same manner on vouchers.

The auditor is required to make, from time to time, systematic and thorough inspection of all public accounts, and make a record of such inspection for the purpose of establishing and continuing a uniform system of keeping accounts and enforcing the same.

In case of any difference between the auditor and any of the department heads regarding the proper appropriation to which any item should be charged, or any matter regarding the construction of the "audit act," or when any amount shall be disallowed by the auditor for the reason of imperfect vouchers or incorrect certificate, or if any person or public accountant feel aggrieved by the decision of the auditor in the rejection or surcharge of the returns, or refusal to approve or allow any demand presented by such person or public accountant, any parties concerned may appeal from said decision to the justices of the supreme court, who, after investigation, may make an order directing the relief of the appellant in whole or in part.

The auditor is required to publish in a newspaper monthly and annual statements of the finances of the Territory. He is further required to make an annual report to the governor and a biennial

report to the legislature, with authority to make recommendations for the better care, custody, and payment of the public moneys, and any improvements in the mode of keeping public accounts, etc.

He is further authorized and empowered, by precept under his hand, to require such persons as he may think fit to appear personally before him and to produce such books and papers and accounts in their possession or control as may be necessary for the purpose of examination, and may administer oaths for such purposes. Any person willfully and corruptly giving false testimony incurs the same penalties as are or may be provided against persons convicted of perjury.

Any public accountant or person who shall fail or neglect to conform to any of the regulations contained in the act, or to attend for the purpose of examination, shall be liable to a penalty of not less than \$25 nor more than \$100, on conviction before any district magistrate. Provision is made in the act for the registration of warrants by the treasurer and the allowance of 5 per cent interest on all warrants so registered when there is not sufficient moneys applicable for payment on presentation. When funds again come into the treasury, payment is made by the treasurer in the order of registration, after publication of notice in the newspapers, interest ceasing on all called warrants ten days after date of publication.

Unless otherwise provided, all appropriations made by the legislature for the public service for any biennial period, and not expended during such period, lapse unless a contract shall have been made before the expiration of such period by which a liability to issue and apply the same shall have been incurred, and a certified copy of such contract shall have been deposited with the auditor.

Upon the whole the act works smoothly, and with a few minor changes or additions, which can be made by the legislature, seems to meet the requirements.

The force of the office consists of the auditor, with an annual salary of \$3,600; the deputy auditor, at \$2,400; a bookkeeper, at \$2,100; three clerks with salaries of \$1,500, \$1,380, and \$1,320, respectively; and this staff is barely adequate to keep up with the work.

In March of the present year the chief clerk of the waterworks department was discovered to be a little over \$2,800 short in his accounts. He was promptly arrested and indicted by the grand jury and is now awaiting trial. Suit has also been entered against his bondsmen.

In May of the present year a shortage was discovered in the office of the land commissioner, which, upon investigation going back to 1899, was found to amount to about \$33,000. Mr. E. S. Boyd, land commissioner, and his chief clerk were both arrested and indicted by the grand jury, and now await trial. Neither of these persons was under bonds, and, as they have no assets that can be levied on, the Territory will undoubtedly lose the whole of the amount.

In the latter case the commissioner and his clerk have been working in collusion for a long time and were systematically either giving other than officially numbered receipts for collections, or were making out receipts leaving the stub blank, and afterwards filling in the stub with the name and amount of an earlier stealing.

In the waterworks much the same method was adopted, but it had continued only for a short time, and was entirely confined to receipts for water delivered to shipping in the harbor, which does not appear on

the rate book under a privilege number. The chances for further embezzlements in this manner are lessened by having the superintendent provide a meter through which all water is delivered to vessels, a means by which the deliveries can be checked.

In the land department, after a thorough study of the needs of the office, there has been made a considerable change in the system of keeping the accounts which will more readily assist in discovering shortages.

It is almost impossible to devise systems to prevent one from stealing if he is bent on doing so. Sooner or later he can be detected and prosecuted, and the best safeguard to the Territory is rigid prosecutions. The auditor recommended to the legislature of 1903 "that all officers and clerks of the Territory be required to furnish sufficient bonds of some reliable fidelity insurance company." These bonds are preferable to those of private individuals, in that such companies have a reputation for following up and prosecuting transgressors.

The revenues of the Territory since annexation have not been sufficient to meet the expenditures, as shown by the following comparative statement of the receipts and expenditures from the time of annexation to the present date. This is due mainly to two reasons, the first being caused by the loss of revenue by the taking over the customs bureau and the post-office by the Federal Government, and secondly, by the neglect of the legislature to keep the appropriation bills to a figure somewhere near the estimated receipts of the Territory.

The excess of disbursements over receipts for the year 1900-1901 was also in part made up by expenditures on account of the bubonic plague which occurred in the first half of the year 1900, the total amount paid out on this account, directly and indirectly, amounting to \$807,008.66.

The loss of the revenues mentioned above are partly made up by the increased receipts of the taxes, which grew from \$1,215,325.91 in 1900-1901 to \$1,681,199.49 in 1903-4.

Receipts and disbursements of Hawaii.

Fiscal year.	Receipts.	Disbursements.	Excess of disbursements.
1900-1901.....	\$2,140,297.36	\$2,576,685.53	\$436,388.17
1901-2.....	2,473,172.81	2,382,968.90	a 90,203.91
1902-3.....	2,387,715.88	2,603,194.20	215,478.32
1903-4.....	2,415,356.33	2,844,054.81	428,698.48

a Excess of receipts.

Comparative statement of taxes collected for each fiscal year since annexation.

	1900-1901.	1901-2.	1902-3.	1903-4.
Real estate.....	\$444,059.63	\$532,637.09	\$560,456.31	\$618,890.81
Personal property.....	490,392.69	571,248.69	592,325.37	607,589.82
Insurance.....	3,223.65	3,846.00	4,685.11	4,623.38
Dogs and tags.....	4,135.86	4,325.19	4,787.60	4,484.80
Poll.....	49,922.00	46,299.00	51,009.00	48,148.00
Road (including carriages, carts, and drays).....	114,459.50	108,861.00	119,822.00	114,806.00
School.....	99,838.00	92,592.00	102,016.00	96,296.00
10 per cent penalties.....	7,699.43	9,586.27	9,359.31	12,011.82
Costs.....	1,595.15	1,525.05	1,465.65	1,806.70
Income.....		287,366.80	205,096.00	172,542.16
Total.....	1,215,325.91	1,658,107.09	1,651,023.12	1,681,199.49

THE JUDICIARY DEPARTMENT.

By W. F. FEAR.

The first four-year period in the history of this Territory has just come to a close, and with it important changes have taken place in the Territorial judiciary. Alfred S. Hartwell and Francis M. Hatch succeed Clinton A. Galbraith and Antonio Perry as associate justices of the supreme court, and A. N. Kepoikai, John A. Matthewman, and C. F. Parsons succeed John W. Kalua, W. S. Edings, and Gilbert F. Little, respectively, as judges of the second, third, and fourth circuit courts.

The courts of Hawaii correspond with the courts in the States rather than the courts in the other Territories. There is a United States district court, which has also the jurisdiction of United States circuit court, and there are distinct Territorial courts. The latter are in general a supreme court, consisting of a chief justice and 2 associate justices, 5 circuit courts, each presided over by a circuit judge, except that the first circuit court has 3 judges, and 29 district courts held by district magistrates. Cases may be taken from the supreme court, as from the State supreme courts, only to the Federal Supreme Court on writ of error and only when Federal questions are involved. The jurisdiction of the supreme court is mostly appellate. Cases are brought to it by appeal, writ of error, or exceptions. It holds one term a year, beginning the first Monday in October and continuing until final adjournment the following summer. The circuit courts have general original jurisdictions; also appellate jurisdiction in cases from the district courts. They hold, as a rule, three terms a year, varying in length from a few weeks to four months. The district courts have jurisdiction of misdemeanors and, with some exceptions, of civil cases in which the amount involved does not exceed \$300. They hold no terms, but sit continuously. Besides these courts of a general nature there are other courts or tribunals of a special nature, among which special mention may be made of the commissioner of private ways and water rights.

A year ago there seemed to be a growing sentiment that the number of the supreme court justices should be increased to five. The increase in the number of cases brought to that court seemed to call for an increase in the membership of the court in order to enable it to keep up with its work, but various changes that have taken place in legislation and otherwise afford ground for belief that this difficulty will be overcome to some extent at least in the near future. There are other reasons, however, which have not been overcome, but which alone perhaps might not at present be deemed sufficient to require an increase in the number of justices. A decision by a bench of five is naturally more satisfactory than one from a bench of three, especially if one of the justices dissents. An increase to five would also to some extent meet the argument for allowing appeals in cases in which Federal cases are not involved, or, if such appeals should be allowed, it would reduce the number of such cases in which appeals would be taken. The expense and delay that would result from such appeals, owing, among other things, to the distance from Washington, or even from California, is something that should be avoided as far as possible.

The appropriations for salaries and expenses in the judiciary department have been reduced in line with the general policy of retrenchment in view of the financial stringency in the Territory, but it is doubtful if this will operate to an appreciable extent in diminishing the efficiency of the judiciary, although it will impose heavier burdens on some officials and work more or less hardship on others.

As a rule the courts are either up to date or not far behind in their work. In the first circuit court in particular much has been accomplished toward the relief of the calendar which was so congested a year ago. This has been brought about through almost continuous sessions of three judges trying jury and other cases, and was made possible mainly through legislation enacted by the last legislature. As a result, largely of the great number of cases so tried in the first circuit court, the calendar of the supreme court has gained somewhat on that court. There is reason to believe, however, that this court, and all the courts of the Territory, will be up to date in their work at no very distant time.

An additional court was added to the courts of record of the Territory by the last legislature, namely, the court of land registration.

This court has been in operation during the past year, though thus far it has had comparatively few cases.

Several much-needed changes have been made recently in the courthouse in Honolulu, especially in the construction of a vault for the records of the supreme court and first circuit court and in the rearrangement of the clerk's offices and the library. There is need of new courthouses in several of the other circuits, the erection of which it is hoped will not be long delayed. Many volumes have been added to the supreme court and circuit court libraries during the past year.

The statistics of the judicial work of the courts are made up for the calendar years. It has been customary in the past to prepare the summaries for periods of two years for the biennial sessions of the legislature. Hereafter they will be prepared yearly. The following will give a general idea of the number and character of the cases, both civil and criminal, and the nationality of the convicted in criminal cases. There are of course some duplications owing to appeals from one court to another, and in some instances to a third court. In general, there has been a slight falling off in the number of cases during the past year as compared with the number during the preceding two years.

LIQUOR SELLING AND DISTILLING.

	1896-97.	1898-99.	1900.	1901-2.	1903.
Total convictions.....	375	258	116	317	138
Total arrests.....	623	461	205	518	234

GAMBLING.

	1896-97.	1898-99.	1900.	1901-2.	1903.
Chinese	1,577	2,096	945	2,241	904
Japanese	971	844	538	2,201	862
Portuguese	11	18	23	69	101
Hawaiians	258	429	220	470	82
Others.....	44	32	19	116	108
Total convictions	2,861	3,419	1,745	5,097	2,057
Total arrests.....	4,146	4,358	2,060	6,209	3,207

OFFENSES AGAINST THE PEACE.

Of affrays, riots, assaults and batteries of all kinds the cases were as follows:

	1896-97.	1898-99.	1900.	1901-2.	1903.
Arrests	2,092	2,461	1,231	3,096	1,472
Convictions	1,208	1,475	668	1,900	831
			1899-1900.	1901-2.	1903.
Total civil cases			7,196	5,056	2,907
Total criminal cases (persons charged)			18,849	21,752	10,059
Total			26,045	26,808	12,966

CASES IN SUPREME, CIRCUIT, AND DISTRICT COURTS.

Supreme court	136	220	84
Circuit court	2,388	3,198	1,385
District courts	23,272	22,996	11,439
Naturalizations	249	394	58
Total	26,045	26,808	12,966

NATIONALITY OF CONVICTED.

	1898-99.	1900.	1901-2.	1903.	Popula- tion, 1900.	Percentage.	
						1901-2.	1903.
Chinese	3,940	1,919	3,302	1,331	27,767	0.128	0.0516
Japanese	1,932	1,480	4,716	2,083	61,111	.077	.034
Portuguese	572	398	963	454	15,675	.061	.0281
Hawaiians	3,294	1,808	3,845	1,527	37,918	.101	.0972
Others	1,359	1,664	3,372	1,313	13,530	.240	.0972
Total	11,097	7,269	16,198	7,708	154,001	.105	.0435

DRUNKENNESS.

	1896-97.	1898-99.	1900.	1901-2.	1903.
Chinese	19	10	6	9	4
Japanese	160	134	115	363	154
Portuguese	86	92	105	201	91
Hawaiians	1,009	1,053	794	1,439	573
Others	588	789	1,163	1,763	615
Convictions	1,862	2,078	2,183	3,775	1,437
Arrests	2,008	2,192	2,281	3,950	1,517

OFFENSES AGAINST CHASTITY.

Of adultery, fornication, incest, polygamy, rape, seduction, and sodomy, the cases were as follows:

	1896-97.	1898-99.	1900.	1901-2.	1903.
Chinese					13
Japanese					95
Portuguese					7
Hawaiians					74
Others					40
Convictions	397	267	138	432	229
Arrests	593	414	207	736	347

OFFENSES AGAINST PROPERTY.

Of larceny, robbery, burglary, embezzlement, felonious branding, extortion, forgery, counterfeiting, gross cheat, and receiving stolen goods, the cases were as follows:

	1896-97.	1898-99.	1900.	1901-2.	1903.
Arrests	945	979	531	1,128	594
Convictions	505	444	243	566	304

HOMICIDES.

The cases of manslaughter were as follows:

	1896-97.	1898-99.	1900.	1901-2.	1903.
Arrests	16	13	9	12	5
Convictions	4	8	6	5	4

The cases of murder were as follows:

	1896-97.	1898-99.	1900.	1901-2.	1903.
Arrests	42	7	6	35	8
Convictions	7	4	3	11	4

MISCELLANEOUS.

	1896-97.	1898-99.	1900.	1901-2.	1903.
Arrests	5,290	5,189	3,528	6,068	2,664
Convictions	3,136	3,144	2,167	4,294	1,704

SUMMARY OF ARRESTS.

	1896-97.	1898-99.	1900.	1901-2.	1903.
Drunkenness	2,008	2,192	2,281	3,950	1,517
Liquor selling and distilling	623	461	205	518	234
Gambling	4,146	4,358	2,060	6,209	3,207
Offenses against chastity	593	414	207	736	347
Offenses against property	945	979	531	1,128	594
Offenses against the peace	2,092	2,461	1,231	3,096	1,472
Homicides	58	20	15	47	13
Miscellaneous	5,290	5,189	3,528	6,068	2,675
Total	15,755	16,074	10,058	21,752	10,059

SUMMARY OF CONVICTIONS.

	1896-97.	1898-99.	1900.	1901-2.	1903.
Drunkenness	1,862	2,078	2,183	3,775	1,437
Liquor selling and distilling	375	258	116	317	138
Gambling	2,861	3,419	1,745	4,898	2,067
Offenses against chastity	397	267	138	432	229
Offenses against property	505	444	243	566	304
Offenses against the peace	1,208	1,475	668	1,900	831
Homicides	11	12	9	16	8
Miscellaneous	3,136	3,144	2,167	4,294	1,704
Total	10,355	11,097	7,269	16,198	6,708

FEDERAL LAW WORK.

By ROBERT W. BRECKONS.

During the early part of the year the local officers of the United States district attorney's department became convinced of the existence within the Territory of some kind of an organization whose operations were resulting in the importation of women from Japan for the purpose of prostitution, and in many instances in the holding of them to a condition of slavery within the Territory. Systematic and persistent work finally resulted in the unearthing of everything connected with this organization. Ample evidence was secured, showing the methods employed by the organization, and the names and addresses of the members, about 75 in number. During the year all of the members were indicted, and about two-thirds of them convicted and punished, their sentences ranging from four to eighteen months. The prosecution in these cases was not directed so much toward the suppression of prostitution as against the importation of women into the United States for the purpose of prostitution, and the holding of women to slavery.

A kindred class of cases handled during the year related to the sale by male Japanese of their wives to other Japanese. Many instances were unearthed in which Japanese husbands had, by written bill of sale, made direct transfers of their wives. In almost every case discovered, indeed, there was discovered also a written bill of sale, the document being nearly always couched in legal phraseology, resembling quite closely the usual form of bill of sale of chattels in use in the United States.

In both classes of cases above referred to, the sentences inflicted were comparatively lenient. Their prosecution among the Japanese was treated by the department as more or less educational in its nature. In nearly all of the cases it appeared that the practices indulged in by the Japanese were not considered by them as particularly criminal in their nature. Most of the defendants came into court and frankly admitted all of the facts, stating, however, that they were not aware of the existence of any law in the United States making these practices unlawful.

The prosecutions have had, in my judgment, a most beneficial effect. Several of the Japanese newspapers published in Honolulu have contained full accounts of the proceedings, and the entire Japanese population have by this time become fully acquainted with American laws on the subject.

LEGISLATIVE FINANCES.

Another quite important piece of work concluded by the department during the year in question related to the records of the legislature of the Territory of Hawaii. For some time prior to the assembling of the October, A. D. 1903, grand jury, it was publicly stated that all of the vouchers relative to the expenditure of money by the legislature of the Territory for the year 1903 had been either destroyed or concealed. When the grand jury met in October a thorough investigation was made of the matter. The vouchers were finally discovered, and unquestionably showed a very loose condition of affairs in so far

as money matters were concerned. The grand jury returned two indictments against the clerk of the legislature. Judge Dole, of the Federal court, in passing on demurrers to the indictments, held that all of the documents relating to the Territorial legislature are public records within the meaning of the statute of the United States of America. The clerk was tried on one of the indictments, and convicted. Subsequently, on account of error occurring during the trial, he was granted a new trial. This second trial will take place in October. The investigation resulted also in an investigation being made by the Territorial grand jury; several indictments and two convictions followed.

The importance of this work arises from the fact that it establishes the doctrine that records of the Territorial legislature are public records within the meaning of the act referred to. There is but little doubt that in the future money will be expended by the Territorial legislature as it should be—that is, publicly, and without any attempt at concealment.

During the year several cases of embezzlement of public funds have arisen and have been prosecuted. The prompt detection and speedy punishment meted out in these cases will unquestionably prove beneficial. The United States of America does not tolerate the idea that restitution of public money embezzled secures immunity from punishment. In some of the cases prosecuted it was apparent that a contrary idea prevailed.

ENFORCING NAVIGATION LAWS.

Considerable time was also taken up during the year with the enforcement of navigation laws. As is well known, there are many acts of the Congress of the United States framed for the protection of sailors. It has been the endeavor of the department to see that all of these laws be enforced, and I think it may safely be said that shipping masters and others have come to understand that navigation laws are not a dead letter, and they are endeavoring to comply with them as far as possible.

INTERNAL-REVENUE LAWS.

Many infractions of the internal-revenue laws of the United States have been discovered and punished. Most of these cases arose out of a section of the Revised Statutes of the United States punishing illicit distilling. The majority of the offenders were Japanese. The records of the court, however, by no means disclose all of the work done here relative to internal-revenue laws. A peculiar feature of the internal-revenue laws of the United States is that compromises of criminal as well as of civil cases are permitted. Following out his ideas on the subject—ideas which are fully supported by his superiors in Washington—the internal-revenue collector, Mr. Roy H. Chamberlain, has settled by compromise many criminal cases. The internal-revenue laws are quite complex, and not easily understood or appreciated without a close and thorough study of and long acquaintance with them. In every case where the infraction of the law has arisen from ignorance most reasonable compromises have been arranged.

INFRACTION OF CUSTOMS LAWS.

A few cases of infractions of the customs laws have been discovered and prosecuted. It is only fair to the people of the Territory, however, to say that a comparison between the port of Honolulu and other ports of the United States shows the percentage of smuggling, or attempted smuggling, to be very small here.

This report should not be closed without saying a word relative to the class of juries secured in the Federal court, and to the feeling of the people of the Territory toward the United States and its laws, as shown by the actions of juries in the Federal court. Our juries have been made up of Hawaiians, of native-born Americans, and of naturalized Americans. No matter what the make-up of the jury, however, in every instance it has been found that they are willing and anxious to arrive at a proper verdict. During the year referred to not a single instance of a juror questioning in the slightest degree the wisdom of any law of the United States of America has been encountered, or refusing to assist in the punishment of its violation because the law was new to him or it did not meet with his approval. In short, judging from the action of the juries in the Federal court, it appears evident that the people of the Territory of Hawaii are satisfied with annexation, and believe in upholding all of the laws of the United States within the Territory.

ATTORNEY-GENERAL'S DEPARTMENT.

By LORRIN ANDREWS.

The legislature in 1903 passed a law increasing the number of circuit court terms on the islands outside of Oahu, it being the expectation that as the county act then passed would go into force on the 1st day of January, 1904, the additional work of representing the Territory at these added terms would not fall upon the attorney-general's office, but upon the new county attorneys. The immediate result, however, was to increase the work of this department.

Between the last of September, 1903, and the 30th of June, 1904, there have been thirteen circuit terms held, at which 196 criminal cases have been tried and disposed of, resulting in 131 convictions and 65 acquittals; and to this should be added the work of the various grand juries and the prosecution of offenders charged with misdemeanors.

In addition to this jury work, the attorney-general's office has argued 28 cases in the supreme court, 19 of which have been decided in favor of the Territory, and has tried 37 civil cases for the Territory.

Mr. Dole, in his report for the period ending December 31, 1902, recites that in two and one-half years he had rendered 341 legal opinions to the departments. Since February 1, 1903, and up to June 30, 1904, the attorney-general's office has rendered 439 opinions to the various departments and to the legislature, of which 287 were rendered within the period covered by this report. In addition thereto, within the last year the attorney-general's office has had 654 oral consultations with heads of departments, and has drawn for their use 87 agree-

ments, contracts, leases, and other legal papers. In addition to these matters, the attorney-general's office for the first time in many years has, at the request of the treasurer, handled suits for delinquent taxes on the Island of Oahu.

COUNTY-ACT LITIGATION.

Shortly after the adjournment of the legislature which, by the passage of a county act, changed in toto the government of the Territory of Hawaii from a centralized appointive government to local government on each island which was entirely elective, the question arose as to the legality of the proposed change which was to go into effect on the 1st of January, 1904. Mr. Henry E. Cooper, as superintendent of public works, objected to the transfer of certain property under his department to a Territorial board created by the county act. A test case was brought in the shape of a mandamus directed against Mr. Cooper by the aforesaid Territorial board. The supreme court of Hawaii, however, upheld Mr. Cooper, and declared such portions of the county act affected by this suit to be unconstitutional. This decision raised further disquietude as to the validity of the act, but an election was held under the act in November, 1903, and, following that election, a contest was entered by several defeated candidates who raised technical points in connection with the construction of the act.

This contest was, however, defeated before the supreme court, the attorney-general representing the board of election. Upon the inauguration of the county government, however, on January 1, 1904, funds were found to be unavailable to carry on county government without resorting to credit until the taxes could be collected, and, owing to the distrust with which that act was then regarded by the business community, difficulty was encountered in raising such funds. As a result thereof, a test case was prepared between the Territory of Hawaii and the supervisors of Oahu, in which the Territory, by quo-warranto proceedings, challenged the validity of the county act and the election of the supervisors under the act, and on January 13, 1904, the supreme court of the Territory of Hawaii decided that the whole county act was invalid and void. Fortunately for the Territory, the system had been in operation for such a short time that there was little or no difficulty in returning to the old form of government, which from that time has been the legal form of government of the Territory of Hawaii.

THE FISHERY CASES.

When the organic act creating a government for the Territory of Hawaii was passed by the Fifty-sixth Congress, it contained the following sections:

REPEAL OF LAWS CONFERRING EXCLUSIVE FISHING RIGHTS.

SEC. 95. That all laws of the Republic of Hawaii which confer exclusive fishing rights upon any person or persons are hereby repealed, and all fisheries in the sea waters of the Territory of Hawaii not included in any fish pond or artificial inclosure shall be free to all citizens of the United States, subject, however, to vested rights; but no such vested right shall be valid after three years from the taking effect of this act unless established as hereinafter provided.

PROCEEDINGS FOR OPENING FISHERIES TO CITIZENS.

SEC. 96. That any person who claims a private right to any such fishery shall, within two years after the taking effect of this act, file his petition in a circuit court of the Territory of Hawaii, setting forth his claim to such fishing right, service of which petition shall be made upon the attorney-general, who shall conduct the case for the Territory, and such case shall be conducted as an ordinary action at law.

That if such fishing right be established, the attorney-general of the Territory of Hawaii may proceed, in such manner as may be provided by law for the condemnation of property for public use, to condemn such private right of fishing to the use of the citizens of the United States upon making just compensation, which compensation, when lawfully ascertained, shall be paid out of any money in the treasury of the Territory of Hawaii not otherwise appropriated.

Upon the last-named section some 82 suits were filed in the Territory of Hawaii by persons claiming vested rights to large tracts of water encircling the various islands. Trials were had, and the supreme court of the Territory of Hawaii held in two test cases that the owners claiming vested rights were incorrect, and that they held no such rights as mentioned in the organic act. From this decision Mr. S. M. Damon appealed to the Supreme Court of the United States upon a writ of error, and the case was argued before that tribunal in April, 1904. The decision of that court was a reversal of the decision of the supreme court of the Territory, and a statement that in this particular class of cases the parties in interest had vested rights in fisheries. Immediately following that decision, the Territory attempted to bring all of these suits to trial, but, owing to excuses by counsel representing the various owners, has not yet succeeded in disposing of any more of these cases.

THE INFAMOUS-CRIME DECISION.

At the September, 1903, term of the circuit court of the first judicial circuit the question was raised, in the case of the Territory of Hawaii *v.* Wa Sin, charged with the offense of selling poisonous drugs without a license, the penalty for which offense was a monetary fine which, if not paid, subjected the defendant to imprisonment at hard labor until it was worked out according to statute, whether or not all criminal offenses, felonies, and misdemeanors under the statutes of Hawaii were not infamous crimes. George D. Gear, second judge of the court before whom the point was argued and submitted, held that all offenses within the Territory of Hawaii were infamous crimes, and before a defendant could be put upon his trial it was necessary that he be duly and legally indicted by the grand jury, whether he be charged with a felony or misdemeanor. The effect of this decision was most drastic, requiring the attorney-general's office to not only perform its ordinary functions of presenting felonies for the consideration of the sitting grand jury, but of presenting every case, no matter how petty, in which a person was charged with crime, to the consideration of the inquisitorial body, or else of seeing the defendant, convicted in the district court, discharged in the circuit court. Therefore, where formerly a grand jury sat one or two weeks in a term, it was kept in session throughout the entire term of court. Fortunately, District Magistrate Alexander Lindsay, jr., showed rare judgment and tact, proceeding as far as possible under the old practice, and, therefore, only upon appeals from his decisions were indictments made necessary. The Territory, not being allowed by statute an appeal where a consti-

tutional question was involved, as is often allowed in other States and Territories in the Union, was forced and compelled to await such time as the question could properly be brought up by a person claiming to be illegally imprisoned and restrained of his liberty, and it was not until five months after the decision in the Wa Sin case that the question was presented before the circuit court of this circuit, upon the application for a writ of habeas corpus by one Goto. Upon the hearing Goto was discharged by Judge Gear, on the ground that he had not been indicted for a misdemeanor, and thereupon a writ of error was sued out by this department from the supreme court of the Territory, before which tribunal the question is now pending.

In view of the foregoing, should the supreme court of this jurisdiction affirm the decision of Judge Gear, necessary legislation will be suggested to the next legislature to remedy the defect in the law, as only by such legislation will it be possible to handle the criminal business of this Territory in a proper manner.

THE POLICE DEPARTMENT.

By A. M. BROWN.

The police administration of this Territory is most broad and comprehensive in its scope and duties.

HIGH SHERIFF.

The high sheriff, appointed by the governor with the approval of the senate, is the chief of police of the Territory, and has, subject to the supervision and control of the attorney-general, the supervision and control of the sheriffs and subordinate officers throughout the Territory.

It is the duty of the high sheriff and of the several sheriffs and deputy sheriffs, within their respective jurisdictions, to preserve the public peace, to have charge of all jails and prisons, to safely keep all persons committed to their charge, to execute all lawful precepts and mandates directed to them by any judge or court, to arrest fugitives from justice as well as all criminals and violators of the laws.

DEPUTY SHERIFFS OF THE TERRITORY.

The law provides for the appointment by such high sheriff of two deputies, who are authorized to do or perform any act or thing required by law to be done or performed by such high sheriff.

SHERIFFS OF ISLANDS.

The islands of Hawaii, Maui, Molokai, Lanai, and Kahoolawe (the four latter being all under one jurisdiction), and Kauai have each a sheriff, appointed by the high sheriff with the approval of the attorney-general, who has the care, supervision, and control of the police within their respective jurisdictions, subject to the superior control of the high sheriff and the attorney-general.

DEPUTY SHERIFFS OF DISTRICTS.

Sheriffs of islands, in turn, have the appointment, subject to the approval of the high sheriff, of a deputy sheriff and such police officers as the needs of the different judicial districts of their island require.

DUTIES OF SHERIFFS AND DEPUTY SHERIFFS AS PROSECUTING ATTORNEYS.

It is one of the duties of the sheriffs and deputy sheriffs to appear and prosecute before the district magistrate in their respective districts all criminal cases, whether they be cases within the jurisdiction of such district magistrates to hear and determine (to-wit, cases where the maximum penalty does not exceed one year) or cases where the penalty exceeds one year, which come before such district magistrate for hearing and committal to the circuit court for trial by jury.

These duties require a high standard of intelligence and legal ability on the part of such sheriffs and deputies.

ISLAND OF OAHU.

At Honolulu, the capital of the Territory, is located the headquarters of the police department and the offices of the high sheriff and his two deputies. Arthur M. Brown, an Hawaiian, born of American parentage, appointed June 14, 1900, is the present high sheriff. Charles F. Chillingworth, an Hawaiian, appointed June 14, 1900, holds the position of first deputy sheriff. Albert McGurn, an Hawaiian, appointed June 14, 1900, holds the position of second deputy sheriff.

The uniformed police force of Honolulu consists of 45 foot police, together with 15 mounted officers and such special police, detectives, and clerks as the work of the department requires.

From the days of the monarchy the rank and file of the foot police in Honolulu, as well as in outlying districts, have been drawn from the native Hawaiians, who have proved themselves most efficient for this class of work. They are almost without exception men of large physique, quiet and sober in their habits, well educated under the splendid school system of this Territory and most amenable to discipline.

The uniform of these officers consists of a dark-blue blouse, white duck trousers, and dark-blue helmet, together with regulation police buttons, club, and belt.

Owing to the extended area of Honolulu a mounted force is necessary to properly police the outlying portions of the city. This force of 15 men, under the immediate control of Lieutenant Leslie, is a valuable adjunct to the force.

The officers are uniformed and the horses equipped after the style of United States cavalry. They receive a monthly pay of \$95, and are required to furnish their own horses and equipment and maintain the same.

Both foot and mounted police are thoroughly drilled in military tactics and the use of firearms, Springfield rifles being used by the foot police and Winchester .45-.70 carbines by the mounted police. Weekly practice at target shooting has brought this force to a high degree of efficiency in marksmanship.

The good results of such training was shown a few months ago when about 1,800 Japanese laborers on the Oahu sugar plantation, about 12

miles from Honolulu, went on a strike and threatened violence to the manager and his assistants. Fifteen mounted officers and 30 foot police, uniformed, armed, and prepared for any emergency, were soon at the plantation and the strikers dispersed. The police remained on duty for two days, when the strikers, realizing that their unjust demands would not be met, returned to work.

This is cited only as an example of what a few men in uniform, thoroughly trained and determined, can accomplish against an unorganized mob.

The sheriffs, deputy sheriffs, and police in the districts outside of Honolulu are uniformed in khaki, similar to the uniform of the United States Army.

Following is a brief statement of the strength of the police force throughout the Territory and the monthly rate of pay received.

HONOLULU.

Police headquarters:

High sheriff	\$250.00
First deputy sheriff	200.00
Second deputy sheriff	150.00
Senior captain	150.00

First watch:

Captain	85.00
Lieutenant	75.00
12 officers	each 70.00

Second watch.

Same as first watch.

Third watch.

Same as first watch.

Mounted police.

Lieutenant	115.00
15 officers	each 95.00
3 clerks, receiving station	do 90.00
3 turnkeys	do 85.00
3 patrol wagon drivers	do 80.00
2 court officers	do 80.00
2 Chinese officers	do 60.00
2 Japanese officers	do 60.00
2 detectives	do 100.00
8 special police	do 75.00
Physician, receiving station	100.00

KOOLAUPOKO.

Deputy sheriff	75.00
2 officers	each 40.00
Jailer	40.00

KOOLAULOA.

Deputy sheriff	75.00
2 officers	each 40.00
Jailer	40.00

WAIALUA.

Deputy sheriff	75.00
2 officers	each 40.00
Jailer	40.00

WAIANAE.

Deputy sheriff	75.00
2 officers	each 40.00
Jailer	40.00

EWA.

Deputy sheriff	\$100. 00
4 officers	each.. 40. 00
Jailer	40. 00

POLICE CALL-BOX SYSTEM.

The city of Honolulu is equipped with 100 Gamewell police-call boxes, which form a very valuable adjunct to the force, enabling officers on duty to be in constant touch with police headquarters.

PATROL WAGON.

At police headquarters, in Honolulu, is stationed an up-to-date rubber-tired patrol wagon with two pairs of horses, one team for day duty, another for night service. This wagon is used for the transportation of prisoners as well as an ambulance for injured persons.

ISLAND OF HAWAII.

The sheriff of the Island of Hawaii, L. A. Andrews, an Hawaiian born of American parents, was appointed June 14, 1900.

Each of the eight judicial districts on this island is presided over by a deputy sheriff appointed as heretofore mentioned with police officers under each of such deputies.

Police headquarters on this island are located at Hilo, the monthly rate of pay being as follows:

Sheriff	\$200. 00
Sheriff's clerk	100. 00

SOUTH HILO.

Deputy sheriff	150. 00
2 captains	each.. 75. 00
2 lieutenants	do.... 60. 00
18 officers	do.... 50. 00
Jailer	80. 00
Deputy jailer	50. 00
4 guards	each.. 30. 00

NORTH HILO.

Deputy sheriff	70. 00
2 officers	each.. 40. 00

KAU.

Deputy sheriff	80. 00
2 officers	each.. 40. 00
Jailer	40. 00

PUNA.

Deputy sheriff	60. 00
4 officers	each.. 40. 00
Jailer	40. 00

ISLAND OF MAUI.

The sheriff of this island, L. M. Baldwin, an Hawaiian born of American parents, was appointed June 14, 1900.

Each of the five judicial districts of this island is presided over by a deputy sheriff and police officers.

Police headquarters on this island are located at Wailuku, and the monthly rate of pay is as follows:

Sheriff	\$187. 50
Sheriff's clerk	80. 00

WAILUKU.

Deputy sheriff	125. 00
Captain	60. 00
10 officers	each.. 50. 00
Jailer	75. 00
2 deputy jailers	each.. 50. 00
Jailer	40. 00

HAMAKUA.

Deputy sheriff	80. 00
Captain	50. 00
4 officers	each.. 40. 00
Jailer	40. 00

SOUTH KOHALA.

Deputy sheriff	75. 00
2 officers	each.. 40. 00
Jailer	40. 00

NORTH KOHALA.

Deputy sheriff	80. 00
4 officers	each.. 40. 00
Jailer	40. 00

NORTH KONA.

Deputy sheriff	80. 00
4 officers	each.. 40. 00
Jailer	40. 00

SOUTH KONA.

Deputy sheriff	80. 00
2 officers	each.. 40. 00
Jailer	40. 00

MAKAWAO.

Deputy sheriff	80. 00
Captain	50. 00
4 officers	each.. 40. 00
Jailer	40. 00

LAHAINA.

Deputy sheriff	80. 00
4 officers	each.. 40. 00
Jailer	40. 00

HANA.

Deputy sheriff	80. 00
2 officers	each.. 40. 00
Jailer	40. 00

KIPAHULU.

Deputy sheriff	40. 00
2 officers	each.. 30. 00
Jailer	35. 00

ISLAND AND DISTRICT OF MOLOKAI.

Deputy sheriff	\$60.00
4 officers	each.. 25.00
Jailer	30.00

LEPER SETTLEMENT (ISLAND OF MOLOKAI).

Captain	35.00
4 officers	each.. 20.00
Jailer	25.00

ISLAND OF KAUAI.

The sheriff of this island, J. H. Coney, is an Hawaiian, appointed June 14, 1900.

Each of the five judicial districts of this island is presided over by a deputy sheriff and police officers.

The police headquarters are located at Lihue. The monthly rate of pay being as follows:

Sheriff	\$175.00
Sheriff's clerk	60.00

LIHUE.

Deputy sheriff	125.00
Captain	50.00
4 officers	each.. 40.00
Jailer	60.00
2 guards	each.. 40.00

KOLOA.

Deputy sheriff	70.00
3 officers	each.. 40.00
Jailer	40.00

WAIMEA.

Deputy sheriff	80.00
4 officers	each.. 40.00
Jailer	40.00

KAWAIIHAU.

Deputy sheriff	70.00
2 officers	each.. 40.00
Jailer	40.00

HANALEI.

Deputy sheriff	70.00
2 officers	each.. 40.00
Jailer	40.00

JAILS AND PRISONS.

Each district throughout the Territory has its jail and court-house, with a commissioned police officer as a jailer. These jails, with the exception of those at Hilo, Island of Hawaii; Wailuku, Island of Maui, and Lihue, Island of Kauai, are merely receiving stations or places of detention for persons arrested and awaiting trial before the district magistrate.

At Hilo, Island of Hawaii; Wailuku, Island of Maui, and Lihue, Island of Kauai, the majority of prisoners convicted on these respective islands of misdemeanors (offenses where the maximum penalty does not exceed one year) are confined.

In the combined jail and prison in Honolulu are confined all prisoners convicted of misdemeanors of the island of Oahu and all others convicted of felony throughout the Territory.

PRISON LABOR.

The laws of this Territory impose hard labor upon all prisoners, which work for the most part consists of labor upon the roads, Government parks, and in the stone quarries.

OAHU PRISON.

This institution, located at Honolulu, is capable of confining 400 prisoners. It is presided over by a warden, William Henry, an American, appointed by the high sheriff, June 14, 1900, at a monthly salary of \$200. Serving under such warden are the following:

	Per month.
Deputy warden	\$150
3 turnkeys.....	each.. 75
24 guards.....	do... 50

A salary of \$100 per month is paid for the daily attendance of a physician to attend to any sick prisoners.

Complete sanitary arrangements, good food, and plenty of exercise reduce the number of sick to a minimum.

About 300 prisoners are at present confined in this institution.

About 150 of these prisoners are employed upon public works in gangs of 15, each gang under the direct supervision of a guard receiving a monthly compensation of \$75.

They are worked nine hours a day, from 6 a. m. to 4 p. m., with an hour for rest and lunch at 12 m.

The remaining convicted prisoners are employed in various capacities about the prison.

The committed men are merely detained awaiting trial.

The legislature of 1904 appropriated for the year ending June 30, 1905, the sum of \$52,272 for the support and maintenance of prisoners throughout the entire Territory.

Also the sum of \$13,800 for police incidentals for the same period.

The entire estimated cost of the police department throughout the Territory, including support and maintenance of prisoners for the year ending June 30, 1905, is \$299,082.

For the year ending June 30, 1904, there were imposed by district magistrates throughout the Territory fines and costs amounting to \$65,214.20. Of this amount, including bails forfeited, \$50,995.75 was paid, the balance being cases appealed or those worked out at hard labor at the rate of 50 cents per day.

In this connection it should be stated that any person working out a fine may at the end of a year's time appear before a district magistrate, take the poor debtor's oath, and secure his discharge from such sentence.

DRUNKENNESS.

The increase in the number of licensed liquor saloons throughout the Territory has not, and the statistics bear out such fact, increased drunkenness.

The care exercised in granting such licenses has insured the proper conduct of such saloons, and such saloons have largely done away with the illicit sale of liquor.

GAMBLING.

The gambling laws are vigorously enforced, as the following statistics show:

Total arrests throughout the Territory	3, 138
Total convictions.....	2, 250

Of this number there were arrested in Honolulu 1,678.

Gambling to a certain extent among the Chinese of this Territory is constantly carried on in the shape of lotteries, and so conducted that convictions under our present laws are hard to secure.

The work done by the police department throughout the Territory shows for itself in the statistics hereto attached.

While a considerable number of crimes of violence have occurred during the past year, there has been a decrease in the ordinary run of offenses.

The number of prisoners at Oahu prison during the year past has averaged 272, the largest number being 324, on May 5, 1904, the lowest number being 232, on July 6, 1903.

The total number of days of imprisonment, classified, is as follows:

	Days.
Criminal offenses.....	61, 065
Misdemeanor offenses	24, 506
Committed	14, 048
Total	99, 619

The total imprisonment of prisoners reduced will show the daily average to have been—

Criminals.....	167
Misdemeanors.....	67
Committed.....	38
Total	272

Classification of the daily incarceration shows that 61.39 per cent were criminals, 24.64 per cent were misdemeanors, and 13.97 per cent were committed.

The average sick was 13.

There have been received during the twelve months ending June 30, 1904, 196 United States prisoners, for the support of which \$6,816.47 has been paid to this department.

The Hilo jail has had an average of 63 prisoners, mostly those convicted of misdemeanor offenses. The Wailuku jail has had an average of 24, mostly convicted of misdemeanor offenses. The Lihue jail has had an average of 15.

These prisoners, under the direction of the superintendent of public works, are worked upon the government roads and in the stone quarries,

Arrests made throughout the Territory of Hawaii and disposition of same in the district courts for the year ending June 30, 1904.

FOR DRUNKENNESS.

Islands.	Total arrests.	Sex.		Nationality.							Discharged.	Convicted.	Imposed.		Bails forfeited.	Fines and costs paid.	Total amount imposed.
		Male.	Female.	Hawaiians.	Americans.	Portuguese.	Chinese.	Japanese.	Porto Ricans.	Others.			Fines.	Costs.			
Oahu	1,060	1,020	40	394	234	51	2	111	30	238	50	1,010	\$2,547.00	\$809.60	\$1,026.00	\$2,276.15	\$3,356.60
Hawaii ..	252	244	8	122	22	39	1	33	22	13	33	219	416.00	161.55	389.00	244.00	577.55
Maui and Molokai	151	149	2	91	19	6	.....	22	8	5	25	126	259.00	49.50	155.00	215.50	308.50
Kauai ...	18	18	..	6	1	1	.....	4	5	1	1	17	31.00	18.00	21.00	45.00	49.00
Total.	1,481	1,431	50	613	276	97	3	170	65	257	109	1,372	3,253.00	1,038.65	1,591.00	2,780.65	4,291.65

FOR GAMBLING.

Oahu	2,040	2,035	5	89	6	11	1,531	377	17	9	756	1,284	\$8,073.00	\$801.35	\$3,211.00	\$3,935.20	\$8,874.35
Hawaii ..	554	551	3	40	...	13	216	254	29	2	100	454	274.00	73.95	2,050.50	316.95	347.95
Maui and Molokai	475	471	4	45	3	...	186	214	27	...	153	322	1,062.00	20.20	983.00	597.20	1,082.20
Kauai ...	157	156	1	14	...	...	57	84	2	...	19	138	160.00	6.00	1,130.00	133.00	166.00
Total.	3,226	3,213	13	188	9	24	1,990	929	75	11	1,028	2,198	9,569.00	901.50	7,379.50	4,982.35	10,470.50

SELLING SPIRITUOUS LIQUOR WITHOUT A LICENSE.

Oahu	80	71	9	12	2	10	27	22	...	7	20	60	\$5,000.00	\$59.00	\$600.00	\$1,270.80	\$5,059.00
Hawaii ..	26	21	5	2	...	1	7	16	...	...	8	18	1,350.00	39.70	450.00	574.35	1,389.70
Maui and Molokai	33	32	1	...	3	4	3	15	3	5	21	12	1,250.00	18.10	100.00	403.40	1,268.10
Kauai ...	14	13	1	1	...	...	7	6	...	...	7	7	435.00	16.10	200.00	3.00	451.10
Total.	153	137	16	15	5	15	44	59	3	12	56	97	8,035.00	132.90	1,350.00	2,251.55	8,167.90

NATIONALITY AND SEX.

Islands.	Total arrests.	Sex.		Nationality.								Disposition.	
		Male.	Female.	Hawaiians.	English.	Americans.	Portuguese.	Chinese.	Japanese.	Porto Ricans.	Others.	Discharged.	Convicted.
Oahu	5,513	5,281	232	1,144	40	447	297	1,868	1,059	222	436	1,731	3,782
Hawaii	2,027	1,921	106	426	3	42	194	322	738	248	54	617	1,410
Maui and Molokai ..	1,371	1,308	63	354	1	48	58	279	522	98	11	498	873
Kauai	491	473	18	89	...	7	10	102	232	45	6	160	331
Total	9,402	8,983	419	2,013	44	544	559	2,571	2,551	613	507	3,006	6,396

AMOUNT OF FINES AND COSTS IMPOSED AND PAID.

Islands.	Total arrests.	Discharged.	Convicted.	Fines.	Costs.	Bails forfeited.	Fines and costs paid.	Total amount imposed.
Oahu	5,513	1,731	3,782	\$24,013.50	\$3,090.05	\$7,123.00	\$12,720.35	\$27,103.55
Hawaii	2,027	617	1,410	3,963.00	1,165.00	6,197.50	2,450.55	5,128.00
Maui and Molokai ..	1,371	498	873	6,444.00	317.00	1,646.50	3,692.30	6,761.00
Kauai	491	160	331	1,650.00	245.20	1,936.00	876.50	1,895.00
Total	9,402	3,006	6,396	36,070.50	4,817.25	16,903.00	19,739.65	40,887.75

Arrests made throughout the city of Honolulu and disposition of same in the district court for the year ending June 30, 1904.

FOR DRUNKENNESS.

Months.	Total arrests.	Sex.		Nationality.								Discharged.	Convicted.	Imposed.		Bails forfeited.	Paid.	Total amount imposed.
		Male.	Female.	Hawaiians.	English.	Americans.	Portuguese.	Chinese.	Japanese.	Porto Ricans.	Others.			Fines.	Costs.			
1903.																		
July.....	137	132	5	49	6	29	5	.....	13	1	34	5	132	\$303.00	\$89.30	\$102.00	\$277.30	\$392.30
August.....	107	100	7	43	3	20	5	.....	18	..	18	2	105	275.00	75.70	72.00	259.60	350.70
September..	102	94	8	42	1	19	8	1	9	2	20	6	96	224.00	75.20	126.00	227.10	299.20
October.....	73	68	5	28	1	12	3	.....	11	2	16	5	68	178.00	58.30	46.00	180.10	236.30
November...	68	68	..	38	1	13	3	.....	7	..	6	2	66	177.00	57.40	42.00	168.00	234.40
December...	83	83	..	25	..	21	7	1	3	6	20	3	80	224.00	69.90	135.00	198.00	293.90
1904.																		
January....	60	58	2	28	1	11	2	.....	6	..	12	5	55	150.00	47.60	35.00	135.15	197.60
February....	97	94	3	32	5	19	10	.....	6	3	22	4	93	229.00	74.40	96.00	201.40	303.40
March.....	67	66	1	25	1	20	3	.....	6	..	12	1	66	143.00	47.20	96.00	106.00	190.20
April.....	56	55	1	17	1	17	1	.....	6	2	12	1	55	147.00	47.00	42.00	123.00	194.00
May.....	120	116	4	29	1	33	2	.....	15	11	29	9	111	315.00	102.50	133.00	226.40	417.50
June.....	59	57	2	20	..	20	1	.....	1	3	14	2	57	141.00	48.10	47.00	116.10	189.10
Total....	1,029	991	38	376	21	234	50	2	101	30	215	45	984	2,506.00	792.60	972.00	2,218.15	3,298.60

FOR GAMBLING.

1903.																		
July.....	79	79	..	2	..	..	..	42	35	..	..	13	66	\$1,213.00	\$55.45	\$130.00	\$1,005.00	\$2,168.45
August.....	107	107	..	7	..	..	..	70	29	..	1	65	42	330.00	8.70	360.00	32.00	338.70
September..	41	41	..	4	..	..	..	36	1	..	..	11	30	197.00	24.40	51.00	206.30	221.40
October.....	63	63	..	1	..	..	..	50	1	11	..	43	20	82.00	22.00	..	94.00	104.00
November...	163	163	..	..	..	..	1	137	25	..	..	22	141	270.00	64.00	472.00	234.00	334.00
December...	77	77	..	..	..	..	..	60	17	..	..	21	56	301.00	35.20	42.00	259.00	336.20
1904.																		
January....	121	121	..	3	..	1	2	104	5	2	4	77	44	164.00	27.60	78.00	132.30	191.60
February....	103	102	1	4	..	..	..	86	13	..	..	32	71	342.00	54.20	87.00	388.20	396.20
March.....	259	259	..	4	..	2	3	224	24	1	1	93	166	921.00	101.40	462.00	181.10	1,022.40
April.....	131	131	..	32	..	3	1	44	50	1	..	28	103	635.00	48.70	460.00	406.70	683.70
May.....	381	378	3	9	..	2	..	337	30	..	3	195	186	1,951.00	168.30	170.00	372.30	2,119.30
June.....	153	153	..	12	..	2	..	128	9	2	..	73	80	952.00	76.70	20.00	350.00	1,028.70
Total....	1,678	1,674	4	78	..	6	11	1,240	239	17	9	673	1,005	7,358.00	686.65	2,332.00	3,660.90	8,044.65

SELLING SPIRITUOUS LIQUOR WITHOUT A LICENSE.

1903.																		
July.....	9	8	1	..	..	2	3	3	..	1	2	7	7	\$900.00	\$10.60	.....	\$101.00	\$910.60
August.....	2	2	..	..	..	2	..	..	..	..	..	..	2	..	..	\$200.00	.....	.....
September..	3	2	1	..	..	..	..	1	2	..	..	..	3	100.00	1.30	100.00	.....	101.30
October.....	1	1	..	..	..	..	..	..	..	1	..	..	1	100.00	1.00	..	101.00	101.00
November...	8	8	..	3	..	..	..	5	..	..	2	6	6	400.00	9.00	..	..	409.00
December...	1	..	1	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..
1904.																		
January....	3	3	..	..	..	..	2	..	..	1	..	3	3	300.00	2.70	..	..	302.70
February....	6	4	2	1	..	..	..	..	4	..	1	..	6	800.00	5.00	100.00	..	805.00
March.....	13	12	1	3	..	1	2	4	3	..	5	8	8	600.00	5.70	100.00	101.00	605.70
April.....	11	10	1	1	..	1	1	2	4	..	2	2	9	900.00	6.40	100.00	353.00	906.40
May.....	4	3	1	..	..	3	..	..	..	..	1	2	2	200.00	1.30	..	..	201.30
June.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total....	61	53	8	9	..	2	10	17	16	..	7	13	48	4,300.00	43.00	600.00	656.00	4,343.00

DEPARTMENT OF SURVEY.

By WALTER E. WALL.

Owing to the complicated system of land division in the different islands of Hawaii and the irregular formation or nature of the country it requires more than mere knowledge of engineering principles to make a survey that will establish accurately the boundaries of the government and private lands. Complications often arise that make surveys slow and costly, and it often requires patience and painstaking efforts on the part of the surveyor in running out or reestablishing the boundaries of the old surveys. The data furnished for the purpose of determining the magnetic declination and the rate of change from year to year to assist in making these surveys has been of much value.

This will be better understood from the following mention of the original claims and divisions of the lands: The land was originally held by the Hawaiians in such manner as the chiefs or kings permitted, and the ownership was continued by them when the government issued titles.

The primary division of the land was the "Ahupuaa." This, as a general rule, took the form of a long strip running from the seashore to the mountains, the object being to give the chief who held it with the approval of the reigning sovereign the various products of the sea and the soil. The tenants under the chiefs occupied their small lots with more or less permanence by rendering military and agricultural service as circumstances required. It is therefore seen that the lands were originally held under a regular system. The great land division took place during the reign of Kamehameha III in 1846-1849, the records of which, briefly stated, show the following:

1. Certain lands which were owned or reserved by the King were for a time treated as private property. The act of the legislature of 1864 made these inalienable public lands known as "Crown lands," the revenue of which was to go to the reigning sovereign.

2. The chiefs retained ownership to the better part of the ahupuaas which had been held by them in fief.

3. The common people were given fee-simple title to such small lots within the ahupuaas as they had occupied and improved. The number of these titles were over 11,000, and many of them covered several separate lots. These lots are commonly referred to as "kuleanas," though they are recorded as "Land commission awards."

4. The remaining lands, most of which were given up by the chiefs in commutation for the acquirement of title to the lands retained, constitute the government lands.

5. Portions of the government lands (No. 4) sold since the above division are known as "Royal patents" and "Grants."

The government grants issued prior to the beginning of the Survey Department numbered about 3,000.

Perhaps a fair estimate of the number of ahupuaas would be about 2,000. These have subdivisions called "ilis," which are not always held by the owner of the ahupuaa.

The above gives the main features of the land system, though many details are necessarily omitted here for lack of space.

Considering the fact that such descriptions as were incorporated in

the above titles were magnetic spot surveys, each quite independent of the other, and this, too, with the local attraction prevalent everywhere, one can not help but realize what an arduous work it has been to bring the mapping of these lands up to the present condition.

There were no general surveys, although the kuleanas of a few sections were platted together. Fortunately the names of the abutting lands or owner is generally given. Most of the larger lands and ahupuaas were awarded by name only, with the understanding that the ancient boundary should be preserved. Owing to the many natural divisions or sections established through the formation of the islands, a great many maps have been made, considering the size of the country. The maps registered in the office number 2,252. Constant use is made of the records of the office by the courts of law and the legal fraternity. Property owners are daily consulting the maps to get information on the location of their lands. This is due to a great extent to boundary disputes arising from the lack of boundary fences. Comparatively little fencing has been done and many ancient boundaries are lost which require expert surveyors to reestablish. There is much important work ahead for the Department in running boundaries of Government tracts, locating the kuleanas or small private lots, which are almost invariably to be found in the most desirable or fertile part of the land, preparatory to laying out such lands into homesteads as they become available. Some idea of the condition and value of the records of this office may be taken from the fact that it took but a few months to furnish the tax assessor with detail maps showing practically all of the original titles on the island of Oahu. The block plans of the city of Honolulu showed frontages, areas, and sufficient data to very materially assist the assessor in his work of appraising values. The various public improvements, such as street widenings, extensions, grading, harbor developments, etc., require many surveys and descriptions to be made. Surveys, descriptions, and plans are made also for every sale or lease of government land.

A great amount of information is furnished to private parties, as well as the various departments of the government, on a variety of matters pertaining to lands. This part of the work seems to be steadily increasing. An important work is the arranging and indexing of records, in order that the maps and documents may be found with the least delay possible. We are now engaged in revising the indices, and cross indexing in a carefully planned manner.

This office has furnished local standard and Greenwich time. Since the operating of the time signal comparatively few chronometers are rated for navigators. Navigators of various classes of vessels often call for time comparisons in order to correct the rates to their chronometers.

In addition to the land surveys all the important harbors have been surveyed and mapped. Many of these have been published by the United States Hydrographic Office.

The triangulation, which consists of a carefully selected network of triangles measured with precision in thorough accordance with the methods of the United States Coast and Geodetic Survey, will, when substantially marked on the ground, serve the same purpose to our lands that the meridian and parallels do in the United States land system. These points will serve as the foundation to geological, hydrographic, and topographical surveys in the future.

METEOROLOGICAL WORK.

By ROBERT C. LYDECKER.

Although the United States Weather Bureau intended to assume charge of the weather service here on the 1st of July, it was found to be impracticable, owing to the late arrival of Director A. M. Ashley, esq., and the many difficulties and delays experienced by him in obtaining satisfactory offices.

Records of daily rainfall have been received from 44 stations on the Island of Hawaii, 39 reporting for the full year, the others having been established during that time, and on account of the sickness of the observer, one station, not included in the above figures, was discontinued. Twelve stations have reported from Maui, being one less than the previous year. A station was established in October, 1903, at Kemoku, Lanai, and reports have been received regularly since then, this being the only station on that island. Twenty-seven stations on Oahu have made full reports for the year, and 2 stations discontinued with but partial records. The Island of Kauai has furnished reports from 15 stations the full year, and 2 were discontinued after a few months, making a total for the group of 99 rain-record stations reporting at the close of the year.

Six observers on Hawaii are furnished with maximum and minimum thermometers, 4 of whom have reported for the full year, 1 dropped out after ten months' service, and the other began only in January, 1904.

One observer reports from Lanai, 1 from Maui, and 4 on Oahu, making a total of 11 temperature reports. Several of these observers report direction of wind and brief notes on the weather. Three observers also make daily observations of humidity, and 1, in addition to the foregoing, barometer readings.

The observations at the central office at 1508 Alexander street, Honolulu, have been kept up in the usual way, involving 39 entries a day. This closes the twenty-first year of the series. The publication of these observations, as well as those at the outstations, in permanent form, begins with the year 1892 and ends with the year 1903. What steps will be taken in reference to the publication of the records from January 1 of the present year until the United States Weather Bureau assumes charge of the service, a subject which will be referred to in a succeeding paragraph, has not yet been decided.

Every month a summary, including the averages and extremes, and comparison with normal meteorological conditions, was published in the local papers. This includes also the average temperature and other items from outside stations, especially the percentage of district rainfall as compared with the normal. One paper also publishes the monthly rainfall throughout the group.

The daily conditions of the weather were telephoned to three daily papers—two evening and one morning; the latter was also furnished with a forecast for the day. This paper also published a weekly meteorological record. All three papers were furnished with a weekly tide table.

A copy of the monthly summary and rainfall, together with a monthly record of observations, on their own form, was sent to the United States Weather Bureau at Washington each month and pub-

lished by the Bureau in its official organ, the *Monthly Weather Review*. As this publication is sent to all the leading observatories, weather offices, and scientific societies throughout the world, our reports had a wide circulation. The United States Hydrographic Office also received monthly reports from this office. Our published annual report for 1903 was, as has been the custom, sent to the principal observatories and weather offices abroad and publications received from them in exchange.

The automatic tide gauge in Honolulu Harbor is under the charge of this office and has been in continuous service, this being one of the important stations of the world. Duplicates of the records are sent to the Tidal Division of the United States Coast and Geodetic Survey twice a year. The mean sea level is also an especial matter of study and the rising and falling of the water in our artesian well subterranean reservoir is noted.

In expectation of the United States Weather Bureau assuming charge of the weather service in the Territory July 1, 1904, the Territorial legislature made no appropriation to support the local service after that date. The work of this office will, therefore, officially cease at that time, but in view of the fact that the United States Bureau is not prepared to take up the work and that a long series of records may remain unbroken the meteorologist will keep up the service as before, in addition to his regular duties in the survey office proper, until such time as the United States Weather Bureau is in position to take it over, which it is expected will be in about two months' time, the United States observer being now on the ground and making every effort to establish his office as soon as possible.

In submitting this, the final report of the Territorial service, a brief summary of the work accomplished seems fitting. From a small beginning and through the untiring efforts of my predecessor, Prof. C. J. Lyons, this station occupies an important place in the world's climatology. Its records are of no little value, and are carefully studied by meteorologists the world over. Situated as we are, near the northern edge of the trade-wind belt, it possesses advantages unique in themselves and opportunities not to be found elsewhere.

Recognizing the importance of the Hawaiian Islands as a meteorological station and the great benefit the study of its climate would be to the meteorological world was doubtless what prompted Professor Lyons to assume the self-imposed task of a systematic record and study, and that his efforts have not been in vain is shown by the appreciation with which they have been received. As to the beginning of these observations Professor Lyons, then an assistant in the government survey, reported to the surveyor-general, under date of April 24, 1890, in part, as follows:

The government survey observations extend back for only a period of seven years for rainfall and about ten for barometer, etc. It may be well in this connection to say that while no especially authorized series of observations has ever been instituted, a beginning has been made in this branch of the public service, viz, the survey, from a conviction that it was a public duty and that this government should to some extent act in unison with all other civilized governments in recording and communicating to the world generally the meteorological facts of the country.

This first report was not so much a report of work done as a gathering up into practical shape of such data as could be obtained from various private records. Mr. Lyons first began keeping temperature

and barometer records in 1874, and from that time until 1882 records were kept as circumstances would permit, being interrupted from time to time by absence caused by surveying duties. In 1882 temperature and barometer observations were undertaken in a more systematic manner, to which were added gradually those of wind and weather. In 1883 observations of the above-mentioned phenomena, with the addition of the rainfall, were begun at the present Weather Bureau station and have continued until the present time. In 1890 humidity observations were added to the above, and in the same year the outside stations began their regular rainfall reports, several stations also reporting temperature, which reports are still received.

Other than the reports published in 1890, annual reports of detail have been published embracing 1892-1903. In addition to the reports mentioned, a report was published in 1900 of rainfall only, giving the entire monthly rainfall of each station from the beginning of observation, when such beginning was before 1897, and coming down to the close of 1900. In some cases this covers a period of twenty or more years. This report gives the normal average for each month of the year, and the average yearly rainfall for each station. As this report covers the entire group, it was doubtless very useful to the agricultural interests of the Territory.

The expense necessary to carry on the work was, to 1895, borne by the survey department. The legislature in that year, recognizing the importance of the work, made a regular appropriation for office expenses, to which, in 1898, was added a salary appropriation for the meteorologist, both of which have since been continued.

Considering the limited means and facilities at its command, the office feels a pardonable pride in the record it has made, the results achieved, and the benefits derived for the islands and the meteorological world generally.

ENTOMOLOGY.

By R. C. L. PERKINS.

The chief work of the economic entomologists of these islands may be divided into two parts: (1) The prevention of the importation of injurious insects or plant diseases from other countries. (2) The destruction of injurious insects already present in the islands. It is quite clear that unless the work mentioned in the former section be faithfully and rigorously executed there is little or no profit in the maintenance of an entomological staff here. Our conditions in Hawaii are not similar to those of any other country where attention is paid to economic entomology, and consequently means adopted with success for the control of certain pests elsewhere are not applicable here except in few cases.

There are obvious reasons for this:

(1) The equability of our climate brings it about that many of our injurious introduced insects, which in their own country appear but for a short season, producing only one or at most two or three broods a year, are known here to produce generation after generation, with only short periods of rest. Hence, multiplication of a pest is extraordinarily rapid as compared with the same in its native home.

(2) When a new insect pest is introduced here it usually arrives immune from parasites, disease, or other restraining causes. In some few cases, owing to the presence of native insects here allied to the introduced one, and to the fact that these native insects are restrained by their own parasites, natural enemies, or diseases, the newcomer is attacked by the enemy of the allied native species and is partly or entirely restrained from doing injury. The chance of such an enemy being found here ready to attack the newcomer is generally very small, owing to the extraordinary character of the native fauna, in which whole groups and families of insects, both injurious and beneficial, are not represented by a single species. This fact alone renders the situation totally unlike that of any other country where economic entomology is systematically practiced. There are disadvantages in being so situated, but likewise great advantages, which it is not necessary to consider here.

(3) Very many of our insects are not at all confined to valuable plants, but also live and thrive on all sorts of common weeds or trees of no special value. Hence, however well the agriculturist clears his own property of a pest, he is liable to be besieged with swarms of the same insect from the rough country round about him, since they naturally flock to the more attractive diet provided by cultivation.

Only quite recently has a staff of entomologists and suitable quarters and apparatus for their work been provided for in this Territory. From the date of annexation to 1902, and indeed for years prior to annexation, Mr. Albert Koebele worked unassisted both here and on his missions. When present in these islands he inspected imported plants; during his long absences inspection was made by the acting commissioner, but not by a qualified entomologist.

In 1902, when Mr. Koebele departed for Mexico, Mr. R. C. L. Perkins was appointed as a government official to inspect imported plants, and he also handled all the beneficial Mexican insects sent by Mr. Koebele, being employed to do so by the Hawaiian Sugar Planters' Association and that of the live-stock breeders of these islands. In 1903 Mr. Koebele was appointed superintendent of entomology under the new board of commissioners, Mr. Perkins was made assistant superintendent, and two other entomologists and an assistant inspector were appointed. Half of the salaries and traveling expenses of the superintendent and two assistant entomologists are defrayed by the Hawaiian Sugar Planters' Association. Mr. Koebele and Mr. Perkins are now making investigations in Australia, while Prof. Alexander Craw, executive officer of the California State board of horticulture, has just been permanently engaged for work in this Territory.

FORESTRY IN THE TERRITORY.

By RALPH S. HOSMER.

The proper management of the forests on the several islands of the Territory is one of the large problems facing the Territory of Hawaii. For the successful development not only of sugar, the staple crop of the Territory, but also the other important agricultural industries, it is essential that there be an ample water supply. It is generally recog-

nized that, to insure beyond question a constant supply of water, the watersheds must be protected by a forest cover. Fortunately, in this Territory, the original forests remain over a considerable portion of the area where such protection is most needed, and, what is equally important, there exists an excellent public sentiment in regard to protecting them.

The native forests are admirably adapted for the conservation of moisture. Under the trees grow dense masses of rich, tropical vegetation, which make very nearly ideal conditions for retaining a large share of the heavy rainfall, and consequently preventing excessive run-off, resulting in alternating seasons of flood and drought. But the forest is easily susceptible to injury, especially from cattle. With grazing the undergrowth recedes, and even the trees, which for the most part are shallow-rooted, become weakened, and fall a prey to numerous destructive insects. For this reason it is necessary that grazing be prohibited in the forests, which are needed to protect and safeguard the watersheds, and this, in turn, leads to the necessity of creating forest reserves.

To administer to the best advantage the reserves to be set aside and to deal with the various forest problems which have to be solved in this Territory is the work of trained men, men educated in the profession of forestry. In part to meet this demand the Territory last year reorganized its department of agriculture and established the present bureau of agriculture and forestry, under the direction of a board of unpaid commissioners appointed by the governor. The division of forestry is under the direction of the superintendent of forestry, who, by the terms of the law, must be a professional forester of experience, and it is the intention to build up in the division a service of technically trained men, who shall be capable of handling to the best advantage the forest interests of the Territory.

Much creditable work in forestry has been done in the Territory in past years, both by the government and by individuals, but the establishment of the present service is a sufficiently important step to entitle Hawaii to a place among the States that are most active in the forestry movement. In the wide field for forestry work now open in the Territory, the first and immediate need is the creation of forest reserves on each of the main islands. Following a careful examination of the proposed reserve by the professional foresters of the division of forestry, recommendations are made by the board on the basis of which the governor will set apart areas of forest land as forest reserves.

Forest reserves having been set apart, the next step will be to establish a system of administration for them. This will include the organization of a forest-ranger service, the erection of suitable fences around the reserves, and the extermination of wild cattle and goats that may be within their limits. The administration of the reserves will rest with the division of forestry.

Following the creation of the reserves and the adoption of a comprehensive system of administration, another line of forestry work will be taken up. This is the planting of waste and barren places throughout the islands with forest trees. Much tree planting has already been done by individuals and corporations on their own lands. From the results of this work and from experiments with exotic trees, now in progress, much information will be available, so that when the time comes for extensive planting it will be definitely known what

kinds of trees are best adapted for the local conditions. In this work trees which are commercially important will be given the preference.

Other lines of work which are being undertaken by the division of forestry are the collection of information as to the character, extent, and distribution of the forests on the several islands, including forest maps; the collection of statistical and other facts relative to the forest products of the Territory; the gathering of an herbarium of the arborescent flora, and, in the library of the bureau, the collection of books on forestry.

The division of forestry maintains close and cordial relations with the Bureau of Forestry of the United States Department of Agriculture, and expects to receive material assistance in at least one line of work—that of assistance to private owners in the management of their forest lands, especially in making plantations.

So far as time and appropriations permit, the division of forestry stands ready to give its advice and assistance to persons desiring to plant, but later it is hoped that the Federal Bureau can furnish a man to assist in this work.

In these main lines of forestry work there is enough to keep busy for a number of years a much larger force than is now available.

With the general plan just outlined carried into effect, the outlook for forestry in the Territory is a bright one. The people are alive to the necessity of preserving the forests and to the fact that any considerable reduction of the existing forest area will endanger the prosperity of the Territory. The forest itself is such that, if protected by the creation of forest reserves, it can be brought into a satisfactory condition. The work of establishing and administering the forest reserves, as well as other forestry investigations, is being handled by a department of the Territory equipped for capably dealing with the problem.

The policy of setting aside tracts of land as forest reservations has been adopted by the trustees of the Bishop estate, who have set aside lands on the islands of Oahu and Hawaii for such purposes. Some of these reservations have been fenced in a substantial and effective manner, and fully protected and reserved for the general benefit of the districts in which they are located, and for the conservation of the water supply, while other tracts are only partially fenced in and protected.

In the Kawailoa-uka tract, on the Island of Oahu, and in the South Kona reservations, on Hawaii, the good effect of this protection is shown in a very marked degree in the new growth of young trees and underbrush.

There is another lot of Bishop estate lands which may possibly be set aside for forestry purposes in the future, upon the completion of some comprehensive plan by the government bureau having charge of these matters. These tracts of land, on the Islands of Kauai, Oahu, and Hawaii, are nearly all in the upper portions of the great interior valleys and in the existing forests, whose preservation is essential to the welfare of the general public and the estate. At the present time and with the limited information at hand it is impossible to give even an approximate estimate of areas of the proposed reservations, but it is believed a very large addition can be made without seriously impairing the revenue-producing areas of the estate lands.

In general, it may be said that it is the policy of the trustees of the Bishop estate to assist in the gradual development of the forest reservations on the islands whenever and wherever it can be done without prejudice to other valuable interests. In several cases in which leases have been made carrying certain water rights appurtenant to the land of the lessors, the forest tracts have been amply protected by strict clauses in the leases, and in future leases the same rule will be followed.

Bishop estate forest reservations.

[Approximate areas.]		Acres.
Hawaii:		
Pahoehoe, Hilo		800
Keauhou, Kau		4,500
Kaiwiki, Hamakua		1,600
Kahauloa, South Kona		3,400
Keei, South Kona		2,900
Honaunau, South Kona		3,700
Keokea, South Kona		1,600
Total		18,500
Oahu:		
Kawailoa, Waialua		8,400
Paalaa-uka, Waialua		4,200
Waiawa, Ewa		4,100
Waiau, Ewa		1,500
Halawa, Ewa		1,800
Kalauao, Ewa		700
Total		20,700

Bishop estate's proposed forest reservations.

Ohau:	
Punaluu, Koolau	Mauka section.
Kaluanui, Koolau	Mauka section.
Maunalua, Kona	Mauka section.
Waialae (2), Kona	Mauka section.
Hawaii:	
Honokane, Kohala	Upper valley.
Kaupulehu, North Kona	Mountain portion.
Kapua, South Kona	Mountain portion.
Kalalau, Hilo	Mauka section.
Kikala, Hilo	Mauka section.
Alae, Hilo	Mauka section.
Kauai:	
Waipa	Upper valley.
Lumabai	Upper valley.

DESCRIPTION OF INDUSTRIES AND ENTERPRISES.

THE SUGAR INDUSTRY.

By C. F. ECKART.

The year 1876, when the reciprocity treaty between the Kingdom of Hawaii and the United States of America was entered into, marked the advance of the sugar industry of the Hawaiian Islands; labor was plentiful and comparatively cheap, the prices of sugar were high and the conditions favored a rapid increase in the sugar industry of the islands.

In late years, however, the prices of labor have risen and the prices of sugar have decreased, and periods of industrial depression have at times very much affected the sugar industry. The planters have had their prosperous years, and have also suffered from lack of labor, droughts, low prices of sugar, and other conditions, during which times they have manufactured their sugar at such expense that there has been no profit. The unfavorable conditions, however, have been met with the progressive spirit of American farmers and business men, and improved methods of cultivation and manufacture have been adopted.

Twenty years ago the average yield of commercial sugar was about 10 pounds per 100 pounds of cane and the average yield of cane per acre was about 25 tons. At the present time the average yield of commercial sugar is about 12 pounds per 100 pounds of cane and the average yield of cane per acre is about 40 tons.

There are now being operated 52 sugar plantations, with outputs varying from 350 short tons of sugar per annum to 35,000 tons. The great majority of these plantations are operated under their separate management, while a few sell their cane to neighboring mills and plantations. These 52 plantations are all represented in Honolulu by agents.

Most of the plantations are joint stock companies. There are a few, however, which are owned by individuals. Forty-three of the plantations which are incorporated have 6,366 stockholders.

The sugar is shipped to San Francisco, Cal., and around Cape Horn by steamer and sailing vessel. From California it goes overland to the East.

Under the United States navigation laws it is necessary that all sugar sent from here be shipped in American bottoms. The planters have been unable to obtain suitable American tonnage sufficient to carry all their sugar to the East around Cape Horn, and at least one-fourth of the crop of 400,000 tons produced last year had to go to San Francisco, Cal., and from thence overland at a rate very much greater than by all water.

The time taken in getting sugar to the market is from two to five months, owing to the great distance which it has to be transported.

In some instances the sugar is shipped direct from the port of a plantation, but in most cases it comes to Honolulu or Hilo, Island of Hawaii, or Kahului, Maui, and from there is shipped to the States. The shipment from the various island ports to Honolulu is accomplished through the two interisland steam navigation companies, which control about 19 vessels representing an American tonnage of 6,018.

The Island of Hawaii produces more sugar than any of the other islands, the island of Oahu coming next, followed by Maui and Kauai. The annual output of the islands since 1894 has been as follows:

[2,000 pounds to the ton.]

	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Hawaii....	72,199	61,643	109,299	126,736	91,606	117,239	115,224	134,618	121,295	170,665
Maui.....	33,689	27,735	29,097	41,047	45,033	54,389	57,347	58,349	56,726	84,776
Oahu.....	18,843	17,433	35,782	28,929	34,181	45,820	53,625	99,534	107,870	121,066
Kauai.....	41,701	42,816	51,650	54,414	58,594	65,359	63,348	67,537	69,720	61,484
Total..	166,432	149,627	225,828	251,126	229,414	282,807	289,544	360,038	355,611	437,991

At the present time the sugar industry is depressed and is feeling the effects of the low price of sugar which prevailed during the past three years and the lack of sufficient competent field labor. The damage done to the cane fields by the leaf hopper, cane borer, and fungus diseases has also been very great.

In the year 1902 the total tonnage produced in the islands was 355,611 short tons. The capitalization of the incorporated plantations was \$63,940,650, and the amount of dividends paid was \$1,757,520, or at the rate of 2.75 per cent.

In 1903 the total tonnage produced was 437,991 short tons. The capitalization of the plantations was \$64,878,931.63, and the total amount of dividends paid was \$1,555,652.68.

YIELDS, FERTILIZATION, AND CULTIVATION.

The yield of sugar for the Hawaiian Islands for the crop of 1903 was 438,054 short tons, which quantity was harvested from an area of 93,350 acres. The following statements of yields show the relative production on irrigated and unirrigated plantations and for the islands as a whole:

Yields of sugar for 1903.

	Acres.	Total sugar.	Yield per acre.
		<i>Tons.</i>	<i>Pounds.</i>
Hawaiian Islands	93,350	438,054	9,385
Irrigated plantations.....	42,097	260,525	12,377
Unirrigated plantations	51,253	177,529	6,927

While the average yield of 4.69 tons of sugar per acre appears high when compared with that of other sugar-growing countries, it is in a measure misleading, for the fact that the Hawaiian cane crop takes as a rule from eighteen to twenty-two months to mature (thirty months are required on certain fields on the uplands of Hawaii) necessitates a

considerable reduction in this stated yield before it can be brought into comparison with annual crops of other countries.

Reliable statistics have been recorded since 1895 showing the yields of sugar and acreage of all plantations in the group, and the increased production per acre between 1895 and 1903 may be seen from the following figures:

	1895.	1903.
Under cane.....acres.....	47,399.5	93,350
Total yield of sugar.....tons.....	157,419.5	438,054
Yield of sugar per acre.....pounds.....	6,472	9,385

This increased yield per acre during a period of nine years may be attributed to several causes, which may be briefly stated as follows:

THE EXPANSION OF THE SUGAR INDUSTRY THROUGH THE TAKING OVER OF NEW LAND.

A certain gain per acre has without doubt followed the planting of new lands. The total area of cane harvested in 1895 was 47,399.5 acres. Of these sugar lands 23,945 acres, or practically 50.6 per cent, were dependent upon rainfall for their water supply, and 23,454.5 acres, or 49.4 per cent, were irrigated. In 1903 the area of cane harvested was 93,350 acres, of which 51,253 acres, or 54.8 per cent, were dependent upon rainfall, and 42,097 acres, or 45.2 per cent, received irrigation. These figures show that the unirrigated area has increased over the irrigated lands by 9,156 acres since 1895. Unless we stop to consider the nature of the lands added to the sugar area in each instance we would expect to find a decrease in the acre yield for 1903 rather than an increase, other influences being omitted from consideration.

New lands taken over by the unirrigated plantations have been largely on the higher levels, where the soil is thinner and poorer as a rule, and the sugar yields, although at first good, are soon reduced after harvesting one or two crops and become less than those obtained from the lower-lying areas. On the irrigated plantations the new lands which have been added to the cultivated area have usually been richer than those under cultivation for some time, and such expansion has followed the opening of new sources of water supply with the advantages of improved irrigation facilities. The production per acre on the unirrigated plantations was 30.4 per cent higher in 1903 than in 1895, and on the irrigated plantations a gain of 61.3 per cent was obtained during the same period. The gain in the former instance must be attributed almost entirely to improved methods of cultivation and fertilization and to the introduction of more thrifty varieties of cane, while in the latter case a greater production due to new lands can not be omitted as an important factor along with the gain from progressive methods of cane farming. A considerable part of this gain on the irrigated plantations was due to the yields of three plantations situated in a favorable locality bordering on Pearl Harbor. The acreage of cane harvested from these plantations in 1903 was 10,419 and the sugar yields 88,768 tons. Omitting these plantations from the list of irrigated estates would reduce the average yield per acre of irrigated plantations for 1903 from 12,377 pounds to 10,844 pounds,

and of the islands as a whole from 9,385 to 8,423 pounds. Two of these plantations, representing 49,993 tons of the 1903 crop, came into existence later than 1895, and the other has largely extended its area since that year. Increased technical skill in the mill and sugarhouse, with a resulting decrease in losses of manufacture, has also added to the output per acre.

While the foregoing comparison shows a remarkable increase between the years 1895 and 1903, it must be borne in mind that the high-water mark in the production of these islands has been reached; the crop for 1904 will not reach more than 380,000 tons, while that of the following year is not estimated to amount even to that figure.

The profits accruing from the increased yields on the irrigated plantations have not always been commensurate with the increased production, owing to the large cost of waterway construction and of pumping. The cost of irrigation includes the installation of pumps, construction of ditches and reservoirs, tunneling, and the labor of applying water to the cane furrows. The expense incurred in the making of Hawaiian irrigation ditches may be conceived when the obstacles encountered in this line of engineering work are considered. The headworks of the Makaweli ditch, for instance, involve 29 tunnels of a continuous length of 5 miles, 7 feet wide and 7 feet high excavated in the solid rock and built on a grade of 8 feet per mile, which will give a daily capacity of over 60,000,000 gallons when running 4 feet deep (report of M. M. O'Shaughnessy). As regards the cost of pumping to higher elevation, Mr. O'Shaughnessy states: "To pump 10,000,000 gallons daily against a head of 300 feet with ordinary pumps and fuel in service will consume 15 tons of coal daily, which at \$8 per tons amounts to \$120 for daily fuel expenses." Another engineer computes the average cost of lifting 1,000,000 gallons of water 1 foot, with coal as fuel, to be as follows:

Operating expenses.....	\$0.081
Interest 6 per cent.....	.014
Depreciation 3 per cent.....	.007
	<hr/>
	.102

With fuel oil the average cost is reduced as follows:

Operating expenses.....	\$0.053
Interest 6 per cent.....	.014
Depreciation 3 per cent.....	.007
	<hr/>
	.074

About 5,000,000 gallons are used per acre in the growing of a crop and this quantity is pumped to a maximum height of 550 feet.

A careful test conducted at the experiment station of the Hawaiian Sugar Planters' Association in Honolulu showed that without irrigation it was only possible to obtain 1,600 pounds, or less than 1 short ton of sugar per acre. This was with a rainfall of 32.5 inches per year. The largest of the irrigated plantations have a much smaller rainfall than 32.5 inches, and it would not be possible to harvest even the small acre output indicated by the unirrigated cane at the experiment station. A yield of 1,600 pounds of sugar to the acre would not justify the expense of growing, harvesting, and milling the same, and it is safe to say that were the sugar lands of this Territory entirely dependent upon rainfall, the 1903 crop would have yielded little more than 177,529 tons of sugar.

INTRODUCTION OF NEW VARIETIES.

In accordance with the experience of planters in other sugar-growing countries, those of Hawaii have been obliged to maintain the yields in many localities by the substitution of more thrifty and hardier canes than the old standard varieties. The attention given to this subject on many of the plantations has undoubtedly helped to raise the acre output. On Hawaii, the Lahaina cane after having been grown for many years was finally succeeded by the Rose bamboo, which latter variety is now making way for a more vigorous cane, termed Yellow Caledonia. In districts subject to overcopious rains or to excessive drought, and where Lahaina and Rose bamboo (in less measure) would show an occasional falling off in production, under such adverse influences Yellow Caledonia, through its hardier characteristics, has maintained a favorable yield in less-favored seasons. On lands which had given out for Lahaina to such an extent that the cane made but a meager growth, this variety has yielded a profit to some plantations that would otherwise have taken off their crop at a loss.

The Hawaiian Sugar Planters' Association maintains at considerable expense an experiment station in Honolulu, where new varieties introduced from foreign sources are carefully tested as to their productive value, and then sent to the various plantations for trial under their conditions. With the advent of serious insect pests and fungus diseases in Hawaiian cane fields, it became necessary to carefully watch the growth of these canes to note their relative immunity from disease and their ability to cope with the serious pests of the islands.

FERTILIZATION AND CULTIVATION.

Probably in no other cane-growing country does the subject of fertilization receive so much consideration as in the Hawaiian Islands, and the study which has been given to this question by plantation managers has done much to raise the sugar yield per acre throughout the Territory. Planters here have adopted a policy different from that usually in vogue. They do not wait to fertilize after the soil is depleted and exhausted, but practice the plan of sustaining the food qualities of the land and bettering its condition by the extensive use of fertilizers on the virgin soil. The percentage of the various ingredients, as well as the forms in which they are applied in mixed fertilizers, are carefully considered with regard to climate and soil and, owing to the diversity of Hawaiian conditions, fertilizer formulas show wide variations in the various districts of the group.

The average quantity of mixed fertilizer applied per acre for the crop of 1903 was 910 pounds, the average formula being 7.1 per cent phosphoric acid, 10.1 per cent potash, and 6.1 per cent nitrogen. The amount of mixed fertilizer applied to the crop of 1903 was approximately 41,000 tons. The amount of nitrogen, phosphoric acid, and potash used was as follows:

	Tons.
Nitrogen in mixed fertilizer	2,501
Phosphoric acid in mixed fertilizer	2,911
Potash in mixed fertilizer	4,141

About 6,000 tons of nitrate of soda containing approximately 900 tons of nitrogen were also used. These large quantities of the various fertilizing ingredients would have values somewhat as follows:

Nitrogen in mixed fertilizer.....	\$750, 300
Phosphoric acid in mixed fertilizer.....	232, 880
Potash in mixed fertilizer.....	393, 395
	<hr/>
Nitrogen in nitrate of soda.....	1, 376, 575
	270, 000
	<hr/>
Total.....	1, 646, 575

In addition to nitrate of soda, specially bought fertilizers, such as lime, ground coral, fish scrap, muriate of potash, tankage, and a mixture of nitrate of soda and sulphate of ammonia were applied. The value of these latter materials, together with the cost of bagging, mixing of complete fertilizers, and transportation would bring the total amount expended for fertilizers to somewhat over \$2,000,000. Besides these fertilizers, which were bought, large quantities of stable manure, furnace ash, molasses, and disintegrated mud press cakes were used, the exact quantity of which is not known.

On one plantation, as a result of careful fertilization, a gain of 100 per cent in sugar was obtained over unfertilized land. On very fertile soils, which respond less to fertilization, a gain of 20 per cent has been reached through the use of suitable fertilizing material.

Almost as much attention has been given to cultivation as to fertilization, and owing to the diversity of methods little can be said on the subject in a brief report of this nature. The most approved patterns of agricultural implements are used, and specially constructed plows, harrows, etc., have been adopted in some instances for the thorough preparation and cultivation of the soil. Steam plows are used on many estates, and deep plowing with moderate subsoiling are practiced where the depth of the staple will permit. In the rainy districts the cost of stripping; i. e., removing the dried leaves from the cane and keeping down weeds, are large items in the expense of cultivation.

During the last several years the cane fields of the Hawaiian Islands have been afflicted with a serious pest, termed the leap hopper (*Perkinsiella saccharicida*), which on many estates has greatly reduced the yield of the 1904 crop. Since getting a foothold in the Territory it has been noticed on seed cane arriving from Queensland and on Chinese cane imported for eating purposes by the Chinese population. It very probably was received originally from either Queensland or China, where it is not known as a pest, owing to the presence of natural enemies which keep it in check, or limitations exerted on its reproductive capacity through climatic causes. An inspection of all plants entering the islands is now rigidly enforced, and much labor and expense have been incurred in reducing to a minimum the chances of receiving insect and fungous pests from foreign sources. The Hawaiian Sugar Planters' Association has organized an efficient entomological bureau for the control of various cane pests, and it is expected that much will be accomplished in keeping down to a safer limit the hopper, borer, and such pests as have in the past proved highly injurious.

The prevailing low prices of sugar and high cost of labor, together with the serious loss annually incurred from insect and fungous depredations necessitate the utmost vigilance on the part of plantation mana-

gers to determine sources of loss in the mill and fields, and through technical skill in the one instance and progressive methods of farming in the other, to combat the tendency toward reduced profit which has been strongly felt from year to year.

THE COFFEE INDUSTRY.

By WM. W. BRUNER.

The coffee crop of 1903 was the largest in the history of the islands, and exceeded 3,000,000 pounds. The total value of all coffee exported to the United States and other countries for the year ending June 30, 1904, was \$184,180; for 1903 it was \$236,860, while for 1902 it was only \$126,644.

While coffee is grown in all the principal islands of the group, 95 per cent of it is produced on the Island of Hawaii, of which over 2,000,000 pounds or 80 per cent of the total Hawaiian production is produced in the district of Kona (whence the name Kona coffee), where it may be stated roughly that the industry furnishes employment to 1,000 people.

The entire area planted to coffee and now producing on the islands is under 4,500 acres. Much of the planting is classed as wild coffee; that is, the trees are not topped and are cultivated only in an irregular manner. These trees are cheaply cared for, growing somewhat under shade and in rocky ground, the growth of weeds is small, and while the crop of coffee on such trees is no more than 700 or 800 pounds per acre, it is cheaply picked, for it ripens almost uniformly. In better soil where the trees are topped, overbearing is the result, to the very great detriment of the trees, but by the application of fertilizer these trees are maintained in good condition, while the yield of coffee per acre is more than double that from the untopped, so-called wild trees.

The cost of production in Kona is about $7\frac{1}{2}$ cents per pound, and the coffee is bringing the producer about 10 cents at present. The cost of production in Hamakua is probably 10 cents and should net the producer 12 cents, as the Hamakua bean is larger and more sought after by the coffee roasters. The difference in the cost of production in the two districts, which produce the bulk of the crop, is due chiefly to the difference in the cost of picking, for in Hamakua coffee does not ripen as regularly and uniformly as it does in Kona.

The price of coffee has been very low for the past seven years, but the year 1903 was the most remarkable in its history, for during it prices reached their lowest basis and production its largest maximum. While the Brazil crop has very materially failed from the enormous 1901-2 crop of 15,000,000 bags, her production has been great and there has been an oversupply of Brazilian coffee. At the same the production of mild coffees, in which class all coffee except Brazil production is included, has been on the increase, and in 1903 was over 5,000,000 bags. This affected the sale of the Hawaiian coffees, and will no doubt have a depressing effect on the sale of the next crop. So, that while Brazilian production has fallen off, and is likely to continue to, on account of the prohibitive tax against planting in Sao Paulo,

where Santos coffee comes from, planting is not likely to take place there for four years, in the meanwhile the production of mild grades has increased from 3,000,000 to 5,000,000 bags. But it can safely be stated that the world's consumption of Brazilian coffee has gone ahead of production for the first time since 1899-1900, although in a comparatively small way, so that overproduction in Brazil, which was the most depressing factor in the coffee-producing world, has ceased. Frost in 1902 and drought in 1903 put a good many plantations out of bearing, while the long period of low prices caused hard times, without any new planting, and thousands of the laboring class are leaving the country. It is said that over 20,000 left last year.

The United States is the largest purchaser of coffee, using about 11 pounds per capita, importing in 1903 \$61,329,564 worth, of an average value of 6½ cents per pound. Four-fifths of this coffee came from Brazil and was paid for mainly in cash, for the total imports from Brazil for the year amounted to \$69,000,000, while the exports from the United States were only \$10,000,000, leaving \$59,000,000 to be paid in cash.

To show what this means in a long period, during the years 1830-1903, inclusive, according to statistics by the United States Government, the imports of coffee into the United States total 22,125,000,000 pounds, valued at \$2,500,000,000, import price.

The Dingley Bill particularly prescribes the remedy by which the United States can secure a much larger share of Brazil's trade, in that it empowers the President, when in his judgment countries supplying the United States with coffee discriminate against United States products, with authority to place a duty on the coffee imported from that country. Brazil trades more with Germany than with the United States, because the Germans are there on the ground, and while American diplomacy has been active to bring about a change, not until a reprisal by tariff duty on her coffee was broached has Brazil been inclined to act. Minister Bryan has recently been reported to have succeeded in effecting satisfactory reciprocity arrangements.

Great quantities of the lowest grades of coffee are imported regularly into the United States, and it is a well-known fact that it is the dumping ground for coffee-producing countries. If you question any grower of prominence where he markets his coffee, he will answer that he ships his better grades to Europe and his poorer ones to the United States. Anyone who has visited a Spanish country will recall with pleasure the good coffee universally found, and this is fairly true in Hawaii, and there are people who have located here from the United States who say that they never liked coffee before they came here, and perhaps they never were able to get what could be classed as coffee where they formerly lived. As a matter of fact the great majority of the American people do not know what a good coffee tastes like. This is not their fault, but it is because coffee roasters purchase only the cheapest and lowest grades to be had and use such great quantities of adulterants and coloring compounds.

The coffee planter of Hawaii and his brother in Porto Rico have an uphill road at present, because they have not only to compete on uneven terms with Central American and other producers of mild coffees, who produce on a silver and sell on a gold basis, and who employ cheap Indian labor under the mozo system; but still the Hawaiian and

Porto Rican producers have two things in their favor: First and foremost is the quality of the coffee they produce, while the second thing in their favor they are not deriving much apparent benefit from yet, is the fact that they are integral parts of the United States; but they will in time secure the advantages which this connection must bring them. Did they produce a poor and inferior coffee it would be different.

The Commissary Department of the United States Army, 91 Whitehall street, New York, solicited bids on 91,000 pounds of coffee, receivable January 26, 1904, in which the specifications called for green coffee, Rio preferred, to be well cleaned and free from dirt and stones. Could Porto Rican or Hawaiian coffee compete under these specifications? Not much was desired in the way of coffee, it simply had to be free from dirt and stones. The Commissary Department of the Army as well as the Navy should use good coffee, and that should be at least in part either Porto Rican or Hawaiian.

As a matter of fact the Commissary Department of the Army in San Francisco, in its specifications for coffee to be supplied to it, contains a joker which absolutely precludes the use of Hawaiian coffee. The specifications call for samples of various coffees, including Hawaiian, which may all be blended except the sample of Hawaiian coffee which can not be blended. This absolutely prevents the use of Hawaiian coffee, for it is a high-grade coffee and certainly can not compete with similar grades of other coffees which have the privilege of being blended with cheaper coffees. This is rank discrimination against Hawaiian coffee by an important Government department; in fact, to be fair to the Hawaiian producer, as San Francisco is the principal market for his coffee, the specifications should call for samples which must contain not less than 50 per cent Hawaiian coffee. While there has been in Porto Rico, and to some extent here, a demand that the Federal Government should help the coffee producers in some way, either by bounty or protection, they at least might hope to secure the support of the Government by the use of only American coffee in the Army and Navy.

The Hawaiian and Porto Rican coffee growers are injured in the market which belongs to them by reason of the immense amounts of low-grade coffees imported. The competition with the superior grades they can and should stand. Eliminate the poorer grades of coffee and triage, and prohibit their importation by an act similar to the tea-inspection act of 1897, and the American consumer will get good coffee *nolens volens* and do the most possible good to the producer of good coffee everywhere.

The Federal tea-inspection act, of March 2, 1897, prohibits the importation of tea below a standard to be fixed by the Secretary of the Treasury, of "purity, quality, and fitness for consumption." On February 23 this year the Supreme Court affirmed the constitutionality of this act. Eight times had it been assailed in the courts. The importance of this decision can not be over estimated. It must be remembered that prior to 1897 the United States was the dumping ground for all the tea trash in the world. As a result consumption, which was 1½ pounds in 1865, fell off to less than 1 pound per capita, while since the passage of the tea-standard act the use of tea is on the increase, and last year was 1.30 per pound per capita, due in great part to the fact that the quality is guaranteed by Federal inspection.

In connection it is interesting to quote from the secretary of the Ceylon Association, London. Mr. Leake says:

In the United States customs authorities refuse to admit the commonest grades of China tea, but to maintain the supply of cheap teas in this country quantities of rubbish have been imported here after having been rejected by the United States customs as unfit for consumption.

The manner of adopting the tea standards is through a board of seven members, appointed annually by the Secretary of the Treasury, each of whom shall be an expert in teas, and receive as compensation the sum of \$50 per annum and traveling expenses, etc. It is an honor to serve on the board. They adopted thirteen standards for 1903 and readopted the same ones this year. In the footsteps of this act there should be passed another which shall prescribe the qualities and grades of coffee that shall be allowed entrance into the United States, and it should go further and include spices, cocoa, and chicory.

Pass a coffee-standard act on the lines of the tea act, and Hawaiian and Porto Rican coffees will advance from 3 to 5 cents per pound. It would strongly advance American coffee interests, while at the same time it would protect the consumer by absolutely preventing the importation of the lowest grades of coffee.

And now is the time to be discriminating, when there is an over-supply of coffee and prices are so very low.

Hawaii enjoys some advantages by reason of her shipping connections and her situation. She should supply more coffee than she does to Japan, Australia, New Zealand, and Canada; and particularly the last, as she remits her duty of 10 per cent on coffee imported from the country of production. Greater efforts should be made to build up the coffee trade with these countries.

If the price of coffee Hawaii produces were a few cents higher, with a prospect of stability in price, immense areas can and would be planted to coffee, as the industry, while now in some localities fairly profitable, can not flourish in less-favored sections at present prices. The industry in Hawaii, though small, is well established, and the product is on the increase, due to the conviction that better prices are only a matter of time. Great advances have been made in the preparation of the coffee for the market. Each year has shown improvement in the milling and grading, and shipments go forward much more uniformly in quality and appearance, so that it can confidently be predicted that Hawaiian coffee will secure for itself the high place its quality insures it.

Quality and not price will attract the American consumer, and when convinced that he is getting the quality, he will pay the price.

THE SISAL INDUSTRY.

By the HAWAIIAN FIBRE COMPANY.

About the year 1893 the commissioner of agriculture and forestry imported some 20,000 sisal plants from Florida. The favorable results of experimental work with them developed in the formation of the Hawaiian Fibre Company (Limited). This company leased land from the Oahu Railway and Land Company, situated on the coral plain between Pearl Lochs and the Waianae Mountains, in the Ewa district,

where plants were set out on a commercial basis. The barren, thin soil of this locality has been shown to be just what is needed for sisal, and comparative tests made by the Tubbs Cordage Company, of San Francisco, have proven the Hawaiian sisal to be superior to the best Yucatan.

When first started the Hawaiian Fibre Company represented an investment of about \$37,000, but later, owing to the success of the enterprise, the superior quality of the fiber, and high price it commanded, the company increased its capitalization to \$75,000.

At the present time there are about 750 acres of land in sisal, and it is expected that the area of the plantation will shortly be considerably increased, if not doubled. Sisal is of slow growth, requiring four years before the first crop matures.

The possibilities for Hawaii in sisal cultivation are shown by the number of plantations started on the various islands. The most promising localities for the growth of sisal have been found to be the comparatively barren, dry soils of the leeward coasts. From the nature of the sisal plant, requiring but little moisture and little cultivation, there are hundreds, probably thousands, of acres of land with thin, stony soil, not suited for sugar cane, which can be utilized for sisal cultivation. One of the largest plantations started on the other islands is the Knudsen plantation on Kauai. On Molokai and Maui considerable time and money have been spent in the introduction and cultivation of sisal. On Hawaii, plantations have been started in the districts of Kona and Olaa, where the industry has become of considerable importance.

From the success of the Hawaiian Fibre Company and the condition of the industry on the other islands, it is safe to predict that the future of sisal in the Territory is now assured. As the islands have such large areas, at present mostly uncultivated, where the soil and climate are well adapted to its growth, and as it requires so little expenditure in cultivation and cleaning, owing to the superiority of the fiber over all others, except perhaps the Manila fiber, and the greater and greater demand for binding twine and cordage, the industry will be, as it now is, a profitable one, and the time is anticipated when sisal fiber will be one of the staple products of the Territory.

THE PINEAPPLE INDUSTRY.

By JAMES D. DOLE.

The pineapples raised in Hawaii are disposed of through three channels: (1) Local sales of fresh fruit; (2) shipments of fresh fruit to the coast; (3) as canned fruit.

Taking them in order:

First. The sales of fruit in the local market are so small as to be of little importance. Honolulu and the sugar plantations furnish an outlet for a limited quantity of pineapples at good prices; but as 3,000 or 4,000 pines per week will at any time glut the local market, it may be considered of little commercial importance.

Second. Shipments of fresh pineapples to the Pacific coast on any large scale are badly hampered by the irregular, uncertain, and infre-

quent sailings of steamers. An interval of ten days or two weeks between sailings of freight boats during the height of the pineapple crop causes a heavy loss to any grower who depends on this outlet for his crop. Pineapples, however, are shipped during the season on every steamer and the business promises to grow. The system recently started by a local concern of delivering fresh pineapples prepaid to any address on the coast is proving successful and is already increasing the demand for the Hawaiian fruit.

Third. The canned pineapple industry has been developing as rapidly as the prevailing scarcity of plants would allow. Approximately 265 acres have been planted during the year—15 acres on Hawaii, 15 on Maui, and 235 on Oahu—making a total acreage planted of about 415 acres. The number of plants now set out in the Territory is approximately as follows: Maui, 300,000; Hawaii, 350,000; Oahu, 2,400,000. Two canneries have been erected during the past year, one by the Haiku Fruit and Packing Company, at Haiku, Maui, and one by W. W. Bruner, at Napoopoo, Hawaii. The canneries of the Pearl City Fruit Company and the Hawaiian Pineapple Company on Oahu have been enlarged. The output of canned pineapples in 1903 was approximately 8,000 cases, and it is expected that the 1904 pack will be close to 20,000 cases.

Pineapples in Hawaii are of unusually good quality because they are grown and ripen to full maturity in the sunshine before they are picked. The fruit is also canned on the spot, practically in the field, as the canning factories are located on the plantations. Hawaiian pineapples are now distributed throughout the mainland of the United States.

VANILLA.

By EDWARD H. EDWARDS.

Of itself the most valuable of what may be termed the aerial parasites, the vanilla vine promises to give to the tropical islands of the United States a new source of revenue and an added importance in the domestic economy of the country. For half a century at various points throughout the Hawaiian archipelago vanilla plants have been grown, more as a matter of experiment or for effect than in an attempt to produce a profitable crop. The plant has flourished wherever it was given attention, and to the efforts of Allen Herbert, at one time commissioner of agriculture under the Kingdom, is largely due the success which now seems about to crown the efforts to make productive this new industry.

Tropical in its nature, thriving best upon the soft, spongy growths, it was but natural that the vanilla plant should thrive wonderfully in our protected districts. Experience has proven that nowhere do the conditions necessary exist in greater perfection than in the Kona or southern side of the large island of the group, Hawaii. There is found a rich soil, decomposed lava, with an average of 80 to 100 inches of rainfall, and the growth of primitive forest to furnish the shelter for the vines. Although an aerial plant, the vanilla adapts itself to a variety of soils. For instance, where a fern tree has found foot-

hold among the rocks the vanilla will make its home, or in the free soil of the Aa or light lava, it will grow as luxuriantly. The vines require support, and it is best for their success that these be natural rather than artificial. These facts make possible a new development among the deserted coffee plantations, which ceased to be profit paying some time since. The tree fern and ti plant both offer excellent natural supports and furnish the needed sustenance for the vines.

The great difficulty so far has been in the procuring of the cuttings from which to start the plantation. Importations have been made from India and from the Caribbean Sea and Central America, but a majority of these plants have failed to adapt themselves to the climate. Some few have lived and from these cuttings were made within the first year, so that the original vine multiplies itself many times. In the experience of the pioneer in this line in the islands, E. H. Edwards, Vanilla Park estate, Napoopoo, more than 20,000 cuttings were imported to get 5,000 vines; or, to put it differently, bringing in a sufficient number of plants to start a 20-acre plantation he found himself with but 5 acres growing.

The vine grows rapidly and bears somewhat profusely once it has made its home in its new surroundings. In the island of Hawaii, which is absolutely tropical on its southern slopes, though tempered by trades to the north, vines have been known to bloom within ten months after planting, but it is not fair to expect a crop until the second year. Once planted, with the ground fairly clean around the trees used as natural supporters, the cost of maintaining the plantation is very small. Several times during the year the grass and weeds would have to be cut from about the vines, but other than that the trimming and gathering of the pods furnish light work for the daughters of a family. The pods picked at their maturity are cured by drying under cover, but this is light work and the process would be readily learned. In fact it is probable that once the industry gets a secure foothold central curing establishments will spring up in the midst of any producing district.

As to the future of the industry, it would appear that nothing more is needed than that production be prosecuted, for the demand seems almost unlimited. One New York importer has asked for from 10,000 to 20,000 pounds a year of high-class product, and on this the price must vary from \$4 to \$8.50 per pound. Each vine will produce about 25 full-sized pods per year. To be of the very first class these pods must run 7 inches in length, all the shorter ones classing as inferior grades. As it takes 100 of the cured pods to make a pound, the 1,000 vines usually planted to each acre would therefore mean 250 pounds of cured pods to each acre of the plantation. It can thus be seen that a vanillarie of 5 acres should give a family a comfortable income, once the vine is in full bearing. The use of frequent cuttings from the growing vines makes it possible to renew the bearing vine and keep the plantation in constant health, so that in the absence of some disease or pest, none of which are now known, the productiveness of an estate would be practically interminable.

THE LIVE-STOCK INDUSTRY.

By ALBERT F. JUDD.

It is not an easy matter to report briefly the present state of the live-stock industry in Hawaii. In the first place there is little information available, even in the office of the secretary of the Hawaiian Live Stock Breeders' Association. The association is young. An accurate report at the present time could be made only after personal inspection of the ranches on each island. The second difficulty is caused by the absence of any history of the industry, although cattle and sheep have been raised here, and horses also, since the days of Vancouver.

RANGES.

It is difficult also to concisely describe the ranches themselves, situated as they are on the eight islands, separated by rough channels from the principal market in Honolulu, and each of the ranches having its own peculiar topographical conditions. While the ranches on the low levels, namely, below 2,000 feet elevation, have many characteristics in common, there is a great difference among them, due to whether or not they are on the windward or leeward side of the island, the rainfall on the leeward side being much less than on the windward. Barren lava flows have their influence. The ranches above the 2,000 feet elevation line are in another class, all of them practically being on the islands of Maui and Hawaii.

GRASSES.

On the low-level ranches on the leeward sides the grasses in the pastures become dry in the hot summer months. The pastures at this time are assisted, however, by the beans of the algeroba tree. As this tree spreads, as it does readily, being carried in the dung of animals, the fodder problem during the summer is lessened. It is on the leeward sides of the islands that this tree has taken its greatest hold. Apparently it has begun to be acclimatized on the windward slopes, although it has as yet made little impression.

After the winter rains these pastures are all that could be desired. Their lack of permanence, however, makes their present condition undesirable.

The lack of distinct seasons and regularity in rainfall have to be taken into account by every ranchman. These facts complicate for him the problem of having his herds always well fed.

There are a number of indigenous grasses on the islands which are excellent feed and are of great value for fattening purposes. They are mostly grasses that can not stand continuous heavy stocking, and large areas of dry and rocky country, which in the past were considered the best fattening lands, are nearly denuded at this time. Much has been done by fencing off such places and giving the location an entire rest for a period of time, which invariably results in the Hawaiian grasses again taking hold.

The introduction of dry range grasses, however, will do much for this class of country. Experiments are now being conducted and the importation of seed is steadily going on in the different estates throughout the Territory. On the moister upper elevations a great variety of

the best grasses in foreign countries have been established here within the past few years. Among the grasses which are doing well are the perennial rye grass, Kentucky blue grass, redtop, orchard grass, Natal redtop, *Bromus inermis*, *Paspalum dilatatum*.

The introduction of new grasses has had much to do with the increased carrying capacity of the various ranges. While much of the land formerly used for cattle has been taken for sugar plantations, and much more destroyed, so far as immediate use is concerned by lantana, yet the carrying capacity of the islands to-day is far greater than it ever was before. Of course this is not alone accounted for by a greater diversity of good feed, but is largely due to the general improvement of the ranges in consequence of intelligent distribution of water, better stock, and also in the construction of paddocks, which allows the grazer to regularly rest portions of his ranch whenever so desired, and minimizes the danger from overstocking and running out some of the best grasses growing upon the land.

This question of fodder in the pastures is now mentioned because of its intimate relation to the present state of the live-stock industry.

HORSES.

From what has been stated, it will be seen that horses are raised under the best conditions on the uplands, where the mares are well fed all the year round. The hard conditions on the lowlands are mainly responsible for the degenerate kanaka plug and rice-field plow horse.

This thought leads me to say that the island of Hawaii produces a surplus of horses of the broncho type superior to those recently passing through Honolulu from San Francisco to Manila on the U. S. army transport *Dix*, and possessing the additional advantage of not needing to be acclimatized for use in the Philippines, and also of being 2,000 miles nearer Manila. As Hawaii has horses to sell, it surely is not out of place to call the above matter to your attention.

CATTLE.

The cattle industry has not reached the feeding stage. This is due to the absence of fodders, which can be grown cheaply. Experiments are now being made with the growing of corn in the Kula district on the island of Maui, and will shortly be undertaken on Molokai. It has been suggested also that the waste from the sugar mills, together with the cane tops now not utilized, might be available also for this purpose. All the cattle and sheep slaughtered on the islands are what would be called "grass fed."

Different ranges are adapted to different breeds of cattle; it can not be said that any one breed are the cattle for the islands. Without any accurate data, I should say that the Hereford is the most popular, or, at least, should be in most locations. There has been a large introduction of Herefords, Shorthorn, Angus, Devons, and Holsteins.

Up to within ten years ago very little was done in the introduction of superior stock. Importations were made before this time, but were small in number and at long intervals of time; so much so that it made no decided impression upon the herds. Within recent years, however, the grazers have seen the importance of introducing new blood and

grading up their stock. Large numbers of pure-blooded stock are being introduced annually, which has already made a decided improvement, and within a few years stock on most ranches should compare favorably with those of other countries.

Every herd of cattle has a residuum of old blood in it, cattle descended and inbred from the old Spanish cattle landed here by Vancouver. One of the problems for the ranchman is the turning of this undesirable part of his herd into cash. The conformation of the stock, with its slab sides and long legs, is such that even when in good condition much of the weight is bone. The blood is hardy but matures late. The stock is wild and often for this reason is badly bruised while going to market. The color of the stock is often yellow or black and tan, with occasionally a brindle hide. The market in Honolulu will not admit of the sale of a big lot of this stock at once, so each ranch has to try to work them off, often to the neighboring plantations or local market. This is being done by all intelligent ranchmen as fast as possible. It is upon this blood that most of the herds are built.

The 8,242 head of cattle slaughtered in Honolulu between July, 1903, and July, 1904, averaged 445 pounds per head. This includes cows as well as steers. Separate statistics are not available.

"Liver fluke" is still a scourge in certain localities. No cure is known for this disease among the ranchers. "Red water" is also prevalent in a few herds. The Territorial laws concerning quarantine against the diseases of animals appear to be insufficient. Until this matter is taken hold of by the Federal Bureau of Animal Industry and an inspector with full authority is stationed in this Territory there is a constant danger that diseases like "Texas fever" and "rinderpest" may slip in and decimate our herds.

The greatest pest on the ranches is the horn fly introduced some six or seven years ago with stock from the mainland. They bother cattle and horses day and night. On the latter they often cause sores on the backs even of brood mares which have never been handled. An unsuccessful attempt was made by our association in 1902 to import tumble bugs from Mexico to combat the pest, and it is hoped that Messrs. Koebele and Perkins, the entomologists who are now in the antipodes, may be able to send us some bug or insect to prey on the larvæ and thus bring relief to the herds.

At the present time the Territory supplies all the beef consumed locally. As methods improve there is a probability that there will be an overproduction and new markets must be sought. Possibly they may be found in supplying the United States Army transports en route to Manila. It is believed, however, that one or two severe droughts such as we have had in the past will probably stop overproduction.

Honolulu is the chief market for beef and mutton in the Territory. Hawaii has but three harbors in which the steamers of the interisland fleet can tie up to the wharf—Honolulu, on the island of Oahu; Hilo, on the island of Hawaii, and Kaunakakai, on the island of Molokai.

From July 1, 1903, to July 1, 1904, from the last-mentioned port there were shipped to Honolulu 809 head of cattle, none from Hilo, and 5,703 from the other ports on the islands (the Oahu-grown cattle are not figured in this account). Every one of these 5,703 head had to be roped, tied to a ship's boat, towed to a steamer, and hoisted aboard before making the trip across the channels to Honolulu. This

is one of the difficulties of the live-stock industry in Hawaii. Anyone can appreciate the fact that this method of sending to market can not compare with sending to market on the hoof or by train. It is doubtful, however, whether these conditions can be much improved.

DAIRYING.

Outside of the town and village centers dairying is carried on primarily for the advantage which is derived from taming and handling the young stock. Butter is made on most ranches, but, considering the number of cattle carried on the ranges, to a very small extent.

WATER.

Water is being intelligently developed on each ranch, and the multiplication of well-watered paddocks is the goal toward which every ranch is working.

It is realized that an improvement in the herd and greater weights on the butcher's account sales are dependent upon the carrying out of the above ideas.

CENSUS.

No census of the live-stock industry has yet been taken and it is difficult to make estimates of value. About the only accurate thing is the number of animals slaughtered in Honolulu. In addition to this each ranch slaughters locally or sells to the neighboring sugar plantations. Without trying to be more than approximate, I estimate Hawaii's herd as follows: Cattle, 140,000; sheep, 95,000.

SHEEP.

Our sheep are inferior in blood and conformation to our horses and cattle. Inbreeding, disease, and ignorance seem to have caused this present condition. In some herds the mortality among the lambs from lungworm, etc., reaches as high as 35 per cent. A strong effort is now being made to do away with these evils and to breed a dual-purpose sheep with sufficient stamina for all local conditions. Few of our pastures are free from burrs, mostly from introduced species of grasses and plants, and the wool suffers in consequence.

The herds do not yield enough mutton to satisfy local consumption in Honolulu, but in a few seasons they will be able to do so.

GOATS.

Goats run wild in many places and have caused and are now causing much damage to the forests and rocky pastures. They are not herded for profit, as far as I know, by any rancher or farmer.

MULES.

Mules are being raised in small numbers. Those bred from the average Hawaiian-bred mare are too small for harness, but make good saddle and pack animals. Most of the mules used upon the sugar plantations for hauling are imported from the mainland.

HINNIES.

On parts of Hawaii jackasses run wild. They are used as beasts of burden, though not much larger than a good-sized sheep. One rancher is experimenting in the breeding of hinnies, but the experiment has not yet advanced sufficiently to determine its success.

Progress is being made in the live-stock industry, and as better methods become more general and more intelligent ideas are put into operation more satisfactory will be the reports made upon it.

RAPID-TRANSIT SERVICE.

By C. G. BALLENTYNE.

Rapid transit in Honolulu as a great public convenience tells its own story daily. Handsome and comfortable electric cars, upon a network of routes, are well filled for eighteen hours a day. Outlying sections of the city, including some of its most picturesque environs, formerly remote and expensive of access from the business center, are becoming convenient for home sites and recreation purposes to all the busy inhabitants. Points of interest, capable of being visited within the shortest space of daylight that a calling ocean liner stays, have been multiplied with the extension of the electric-car tracks. The burden of society is eased by the cheapness and celerity, together with cleanliness, with which folks are now whirled to and from evening entertainments. Band music in the evenings and holidays may now be enjoyed by the multitude, however far from their homes the rendezvous, without long journeys on foot. Parents have a choice of schools for their children, so far as distance is concerned, at special rates of fare, which makes this expense scarcely appreciable in the sum total of the family's educational outlay.

The original rolling stock equipment of the Honolulu Rapid Transit and Land Company consisted of 35 motor cars and 10 trailers. This was found to be inadequate, both as to the number and seating capacity of the cars. The directors have therefore ordered additional equipment to consist of 10 motor cars of the open type, having a seating capacity of 56 persons each. They have also decided to splice some of the small motor cars and trailers, thus making one motor car of large capacity. In the month of May last oil was substituted for coal for steam generating purposes, with good results as to economy, efficiency, and cleanliness. Mr. C. G. Ballentyne, manager of the company, states that there has been 2.206 miles of new single track laid since June 30, 1903, chiefly in branches to the main lines. This is exclusive of 2,900 feet of turn-out construction. The construction of the Beretania street section, 2.447 miles, will complete the system, with the exception of a short extension of the King street line to the proposed military post at Kahauiki, about 3,500 feet.

The entire system now embraces the following:

	Miles.
The King street line, extending from Kalihi to Diamond Head, at Waikiki...	7.467
The Hotal street line, extending from Liliha and Wyllie streets, to Alexander and King streets.....	4.811
The Fort and Nuuanu streets line, extending from the Honolulu Iron Works, on Ala Moana, to the mausoleum, on Nuuanu street	2.206

Miles.

The Beretania street line, operating from Fort and Allen streets, to and along Beretania street, to Alexander and King streets	2,562
The Alakea street line, extending from Allen street to Pauoa	1,240
The Manoa Valley line, extending from Wilder avenue up to Manoa Valley	1,745
The Waialae road line, operating from Alexander and King streets to Waialae	2,476
The South street branch .....	.277
The River street section, extending from Fort street along Queen street to River and King streets .....	.411
Total mileage operated	23,195

Number of cars in regular service, 25.

The following is a condensed statement showing the results of the car operations for the year ending June 30, 1904, with figures for the previous year for comparison:

	Year ending June 30—		Increase.
	1904.	1903.	
Passenger-car mileage	1,374,460.20	968,886	405,574.20
Passengers carried	6,528,391	4,799,933	1,728,458
Gross earnings	\$318,706.80	\$235,912.13	\$82,794.67
Operating expenses	\$178,643.63	\$128,590.85	\$50,052.78
Net earnings	\$140,063.17	\$107,321.28	\$32,741.89
Fixed charges, including interest on bonds, taxes, etc.	\$47,504.15	\$32,563.50	\$14,940.65
Net income	\$92,559.02	\$74,757.78	\$17,801.24
Per cent of operating expenses to earnings	56.05	54.50	1.55
Per cent of operating expenses and fixed charges to earnings	85.09	68.30	16.79
Capital stock outstanding	\$1,140,000.00	\$1,000,000.00	\$140,000.00
Bonded debt	\$610,000.00	\$425,000.00	\$185,000.00

NOTE.—From the operation of horse-car lines (July 1 to December 23, 1903), the earnings were \$13,288.51 and operating expenses \$19,637.32. These figures are not included in the above statement

During the year the company acquired the property and franchises of the Hawaiian Tramways Company's horse-car system, embracing about 12½ miles of track, 36-inch gauge, and dismantled the same in its entirety. Certain streets occupied by this company had already been occupied by the Honolulu Rapid Transit and Land Company, and of the remaining streets covered by the horse-car franchises the Rapid Transit Company has constructed its tracks on Beretania street, Nuuanu street, part of Fort street, Alakea street, and River street.

The following exhibit shows the results of the rapid-transit system, by months, during the last calendar year:

Month.	Mileage.	Passen- gers.	Earnings.	Operating expenses.	Net earnings.
January	78,661.63	407,312	\$19,510.20	\$10,836.06	\$8,674.14
February	84,300.75	387,230	18,596.05	11,171.27	7,424.78
March	93,026.39	438,606	20,989.55	12,537.24	8,452.31
April	90,208.39	417,211	20,106.70	11,485.83	8,620.87
May	93,435.51	457,718	21,940.90	11,767.09	10,173.81
June	93,807.95	476,390	23,076.65	11,798.94	11,277.71
July	103,383.87	498,911	24,641.25	13,325.94	11,315.31
August	106,890.95	513,633	25,324.30	14,047.04	11,277.26
September	102,979.68	510,979	24,568.20	12,586.99	11,981.21
October	108,104.14	540,296	25,784.20	13,118.63	12,665.57
November	109,016.86	534,627	25,855.75	14,458.33	11,397.42
December	119,263.60	606,244	29,474.30	15,385.56	14,088.74
Total	1,183,079.72	5,789,157	279,873.05	152,518.92	127,354.13
Income from other sources					4,445.96
Net income after deducting operating expenses					131,800.09
Fixed charges, bond interest, taxes, insurance, etc.					41,607.14
Net income over all charges					90,192.95

Month.	Per cent expenses to income.	Miles in operation.
January.....	54.59	12.083
February.....	59.09	14.200
March.....	58.46	14.200
April.....	56.18	14.200
May.....	52.79	14.200
June.....	50.28	12.723
July.....	53.38	15.955
August.....	54.59	16.642
September.....	50.61	16.840
October.....	50.19	18.090
November.....	55.15	18.867
December.....	51.49	19.594
Average.....	53.64	15.799

SAFEGUARDS FOR THE PUBLIC.

The company's franchise, act 68, session laws of 1898, regulates the capitalization and the per cent of dividend which may be paid to stockholders, and safeguards the public against excessive charges. Section 37 limits the amount of the capital stock to "the actual cost of the property of the railway, and not over 25 per cent of such cost in addition thereto."

Section 17 provides: (1) For "the expense of operating, repairs, renewals, extensions, interest, and every other cost and charge properly or necessarily connected with the maintenance and operation of the said railway;" (2) "dividends may be paid to stockholders not to exceed 8 per cent on the par value of the stock issued;" (3) "a sinking fund (computed at 5 per cent) may be created for the redemption of any bond which may be issued or other record debt, and the capital at the expiration of the franchise;" and (4) "the excess of income (over and above the amount necessary for the foregoing purposes) shall be divided equally between the government of the Territory of Hawaii and the stockholders of the said corporation."

Section 9 regulates the "rates of fare," and provides that "any person riding upon the cars of said railway shall be liable to pay for such transportation the following rates: 'For a continuous ride between Diamond Head and Moanalua (upward of 8 miles) or makai (inland) of a line drawn parallel to the seacoast and 1½ miles distant therefrom, not to exceed 5 cents: *Provided*, That school children under 17 years of age, in going to and from school, shall not be required to pay over half fares, for which purpose tickets shall be issued.'"

Subsection 3 provides for the issue of transfers "from one car to another upon a connecting line."

Subsection 4 provides that the company "shall make reasonable and just regulations, with the consent and approval of the governor, regarding the maintenance and operation of said railway."

Policemen, firemen, and letter carriers, when on duty and in uniform, are carried free.

COMMERCE AND NAVIGATION.

THE COMMERCE OF HAWAII.

By E. R. STACKABLE.

The first tariff act of the Kingdom of Hawaii, entitled "An act for the regulation of taxes, duty, and government property," was approved May 11, 1842, and took effect January 1, 1843. Section 7 of this act read as follows:

It is furthermore enacted that from and after the first day of January in the year 1843 there shall be an ad valorem duty of 3 per cent laid on all goods, wares, and merchandise and on every article of trade imported to these Hawaiian Islands from foreign nations. None of the above articles shall be landed on these shores until the duty be paid or bonds for payment be given and the harbor master has given his consent, and he will not give his consent unless the owner of the property conforms to the above requirements.

It may be interesting to know that the first shipment of merchandise into Hawaii paying duty was brought by an American vessel, the *Vancouver*, from the Columbia River, consigned to a Mr. G. T. Allen, agent for the Hudson Bay Company, the entry for which was made on January 6, 1843, by Capt. A. Duncan, and consisted of 695 barrels of Columbia River salmon, valued at \$4,170, and 160 planks 4 inches by 12 feet, valued at \$307.20, on the total amount of which an ad valorem duty of 3 per cent, or \$134.32, was collected.

Fifty-three years prior to the establishment of a custom-house in the Kingdom of Hawaii the first tariff act of the United States was passed, entitled "An act for laying a duty on goods, wares, and merchandise imported into the United States," which was approved on July 4, 1789, and went into effect August 1 of the same year.

Mr. James Madison introduced the subject of the tariff and the bill above referred to in the House of Representatives on the 8th day of April, 1789. Part of his speech on that occasion is even of interest now, as the collection of revenue by this means has met with universal approval. Mr. Madison said:

I take the liberty, Mr. Chairman, at this early stage of the business, to introduce to the committee a subject which appears to me to be of greatest magnitude; a subject, sir, that requires our first attention and our united exertions. The deficiency in our Treasury has been too notorious to make it necessary for me to animadvert upon that subject. Let us content ourselves with endeavoring to remedy that evil. To do this a national revenue must be obtained; but the system must be such a one that, while it secures the object of revenue, it shall not be oppressive to our constituents. Happy it is for us that such a system is within our power, for I apprehend that both these objects may be obtained from an impost on articles imported into the United States.

The present tariff of the United States, approved July 24, 1897, (known as the Dingley bill) took full effect in this Territory on June 14, 1900, and the Federal custom-house was established on the premises formerly used for customs purposes under the Republic of Hawaii. (See sec. 88, act of April 30, 1900.)

The revenue collected through customs in the Territory of Hawaii is large in comparison with that of other communities, and is all the more striking because it is taken from within a limited area and a population of but about 155,000, while the revenue from customs in other ports is taken from a large population tributary to them.

The customs collections in Hawaii from June 14, 1900, to June 30, 1904, have been as follows:

1900 (June 14 to 30)	\$45,523.99
1901	1,219,338.79
1902	1,327,798.37
1903	1,193,677.83
1904	1,229,492.15
Total	5,015,831.13

In 1903 the following customs districts in the United States collected over \$1,000,000:

1. New York	\$182,774,815.67
2. Boston	24,030,350.53
3. Philadelphia	22,973,897.43
4. Chicago	9,751,644.72
5. New Orleans	8,670,585.07
6. San Francisco	7,850,705.35
7. Baltimore	5,417,360.70
8. St. Louis	2,035,054.62
9. Tampa	1,301,986.36
10. Detroit	1,272,555.58
11. Hawaii	1,193,677.83
12. Newport News	1,120,468.76
13. Cincinnati	1,106,010.09
14. Cuyahoga (Cleveland)	1,088,609.32
15. Vermont	1,051,245.99
16. Puget Sound	1,027,774.04

From the above it will be seen that Hawaii was eleventh on the list, collecting more than such large places as Newport News, Cincinnati, Cleveland, and the entire Puget Sound region.

Since 1897, the year before the passage of the joint resolution of annexation, approved July 7, 1898, the exports from this Territory to the United States have practically doubled, increasing from \$13,687,799 to \$25,157,255 in 1904.

Turning to the import side, the figures show an even larger growth. The imports from the United States grew from \$4,690,075 in 1897 to \$11,987,050 in 1904. These latter figures, however, are not for the banner year. Following annexation, the commerce of Hawaii was stimulated by the influx of new capital, and in 1901 there was imported from the United States over \$22,000,000 worth of goods, while the banner year for exports was 1903, in which the value exceeded \$26,000,000. This falling off is undoubtedly due to the depression that has existed here of late.

Total value of all articles imported from foreign countries and exported from the District of Hawaii for the fiscal year ending June 30, 1904.

Countries.	Imports.	Exports.
United States	\$11,987,050	\$25,157,255
Great Britain	622,465	492
British colonies	904,772	23,120
Germany	347,359	558
Hongkong	189,101	14,027
Japan	1,205,055	5,090
Chile	506,955	
France	8,778	18
Other countries	13,156	4,315
Total	15,784,691	25,204,875

Shipments received from the United States	\$11,987,050
Imports from foreign countries	3,797,641
Total	15,784,691

A remarkable exhibit is made by comparing the trade growth per capita of population in Hawaii, which shows an increase from \$131 up to \$247, under annexation, for every man, woman, and child in the country—a total per capita of trade that is more than eight times greater than that of the trade per capita for the entire United States. Thus:

Hawaii's per capita of trade.

Fiscal year.	Imports.	Exports.	Total.
1897	\$33.50	\$97.77	\$131.27
1898	42.20	122.76	164.96
1899	66.46	127.36	193.82
1900	90.00	138.05	228.05
1901		186.02	
1902		164.86	
1903	72.27	174.95	247.22
1904	105.23	161.37	273.26
903, per capita foreign trade of the United States			30.43

The principal sources from which foreign goods were received in 1903 were: Japan, \$910,686, mostly saki, rice, and other provisions; British East Indies, \$437,967, mostly jute bags; Germany, \$432,498, miscellaneous merchandise; Australia, \$382,494, almost entirely coal; Chile, \$271,173, nitrates; United Kingdom, \$259,311, miscellaneous merchandise; Hongkong, \$197,083, Chinese provisions and other goods.

Thus there remained only \$100,000 worth of goods supplied by all other foreign countries.

Hawaii's staple product for export is, of course, sugar, and its output has more than doubled in quantity and in value within the past eight years. As this is the principal commodity that affects the prosperity of the Territory, its importance will be realized from the following exhibit:

Quantity and value of sugar exported.

Year ending June 30—	Pounds.	Value.	Price per pound.
			<i>Cents.</i>
1896.....	352,175,269	\$11,336,796	3.22
1897.....	431,196,980	13,164,379	3.05
1898.....	499,766,798	16,660,109	3.33
1899.....	462,299,880	17,287,683	3.72
1900.....	504,713,105	20,392,150	4.05
1901.....	690,877,934	27,093,863	3.92
1902.....	720,553,357	24,147,884	3.35
1903.....	774,825,420	25,665,733	3.31
1904.....	736,491,992	24,359,385	3.30

All of this sugar is sold in New York or San Francisco, and it affords cargoes for American steamers and sailing vessels amounting to almost 400,000 short tons, besides the smaller shipments of coffee, sisal, fruits, hides, etc., which are shown in the following table, as taken from official records of the custom-house:

Total value of domestic products shipped to the United States and exported to foreign countries during the fiscal year ending June 30, 1904.

Articles.	Quantity.	Value.
	<i>Pounds.</i>	
Sugar, raw.....	736,491,992	\$24,359,385
Coffee, raw.....	1,481,968	184,180
Rice.....	40,261	1,629
Fruits.....		128,624
Honey.....		17,947
Hides.....	970,381	74,331
Wool, raw.....	169,938	22,406
Other.....		384,047
Total.....		25,172,549

Domestic products shipped to the United States for the year ending June 30, 1904.

Articles.	Quantity.	Value.
	<i>Pounds.</i>	
Sugar, raw.....	736,491,992	\$24,359,385
Coffee, raw.....	1,372,249	169,172
Rice.....	39,911	1,610
Fruit.....		127,725
Honey.....		14,346
Hides.....	970,381	74,331
Wool, raw.....	169,938	364,558
Other.....		22,406
Total.....		25,133,533

Domestic exports to foreign countries for the year ending June 30, 1904.

Articles.	Quantity.	Value.
	<i>Pounds.</i>	
Coffee, raw.....	109,719	\$15,008
Rice.....	350	19
Fruits.....		899
Honey.....		3,601
Other.....		19,489
Total.....		39,016

It will be seen from the foregoing that Hawaii's exports to foreign countries are practically nil, and that almost the entire exportable commodities from these islands go to the mainland.

Exports for the year ending June 30, 1904.

Domestic merchandise to foreign countries	\$39, 016
Domestic merchandise to United States	25, 157, 255
Foreign merchandise to foreign countries	8, 604
Foreign merchandise to United States	23, 722
Total	25, 228, 597
Total specie exported to United States and foreign countries	285, 493

Last year there were 488 vessels of 933,847 tons that entered Hawaiian ports, and 497 vessels of 936,627 tons that cleared for mainland and foreign ports. Of these there were 377 American vessels of 667,350 tons entered and 387 American vessels of 672,539 tons that cleared. This indicates that more than 70 per cent of the total commerce of Hawaii with the mainland and all foreign ports is conducted under the American flag, as follows:

Nationality.	Entered.		Cleared.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
American	377	667, 350	387	672, 539
Foreign	111	266, 497	110	264, 088
Total	488	933, 847	497	936, 627

But there are many foreign steamers calling here that carry no freight to or from the mainland, hence the proportion of trade carried by American vessels is even larger than the foregoing figures would indicate, and can better be shown by giving the values of the merchandise received and exported by vessels of different nationalities. This gives a total of \$26,597,353 to American vessels out of a total of \$29,002,516, or 90 per cent of the whole.

Value of the carrying trade to and from the Territory of Hawaii for the year ending June 30, 1904.

Nationality.	Imports.	Exports.
American	\$1, 414, 940	\$25, 182, 413
British	1, 474, 521	15, 817
French	25, 757	
German	284, 606	
Italian	15, 402	
Norwegian	15, 173	
Other	567, 242	6, 646
Total	3, 797, 641	25, 204, 875

Total number of vessels entering and clearing in the district of Hawaii during the fiscal year ending June 30, 1904.

Ports.	Coastwise. ^a				Foreign.			
	Entered.		Cleared.		Entered.		Cleared.	
	Number.	Tons.	Number.	Tons.	Number.	Tons.	Number.	Tons.
Honolulu	235	469,959	290	524,966	176	391,351	105	316,530
Hilo	33	41,530	40	50,842	3	3,547	.....	.....
Kahului	9	8,099	23	19,369	12	12,157	.....	.....
Koloa	2	1,012	20	18,076	.....	.....	1	994
Mahukona	17	5,550	18	5,850	1	642	.....	.....
Total	296	526,150	391	619,103	192	407,697	106	317,524

^aThe figures under the title "coastwise" refer to American vessels doing business between Hawaiian and mainland ports, but do not include vessels engaged in the traffic among the Hawaiian Islands.

Total number of vessels entering and clearing in the district of Hawaii.

	Entered.		Cleared.	
	Number.	Tonnage.	Number.	Tonnage.
Coastwise ^a	296	526,150	391	619,103
Foreign	192	407,697	106	317,524
Total	488	933,847	497	936,627

^aThe figures under the title of "coastwise" refer to American vessels doing business between Hawaiian and mainland ports, but do not include vessels engaged in traffic among the Hawaiian Islands.

Statement of vessels entering and clearing in the district of Hawaii for the fiscal year ending June 30, 1904.

Nationality.	Entered.		Cleared.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
American	377	667,350	387	672,539
British	74	174,622	75	177,563
Japanese	19	65,487	18	62,027
German	6	8,680	5	6,885
French	2	4,186	2	4,186
Italian	3	4,150	3	4,150
Norwegian	3	3,680	3	3,680
Chilean	4	5,692	3	3,886
Swedish .....	.....	.....	1	1,711
Total	488	933,847	497	936,627

STEAMSHIP COMMUNICATION.

By J. G. ROTHWELL.

There are a number of first-class steamers running between Honolulu and San Francisco, but only one of them makes its terminus at this port, the others merely touching here while en route to the Orient or Australia. The Pacific Mail Line now has the *Korea*, *Siberia*, *Mon-golia*, and *Doric*, with the *Manchuria* coming. The Toyo Kisen Kaisha Line withdrew its steamers owing to the war between Japan and Russia, but one of its boats has now been replaced on the line. This is a service to Hawaii only to the extent that the Japanese steamers carry mails.

The Oceanic Steamship Company has the *Alameda*, *Sierra*, *Sonoma*, and *Ventura* calling here, the last three named going on to Samoa and Australia. Practically, then, there is only one steamer, the *Alameda*, that is employed in regular service between Honolulu and San Francisco.

Transportation charges are at present, by steamer, \$75 first class either way, or \$135 for the round trip; second class, \$50; sailing-vessel rate, \$40. The rate is the same to San Francisco whether the passenger travel direct by American steamer or by British steamer to Vancouver and thence to destination by rail. The same is true if the passenger for Vancouver, British Columbia, go direct by British steamer, or through San Francisco and by rail to the North. For twelve months efforts have been directed toward securing reductions of fares, but without avail.

In addition to the passenger lines mentioned, the Hawaiian-American Line sends freight steamers around the Horn between Honolulu and New York, and has one vessel in the trade between this city and San Francisco. The various lines of sailing packets between this port and San Francisco and New York employ some 20 vessels, and a large number of deep-water ships are called for each year in addition.

The operation of the coasting laws, under existing conditions, has diverted travelers from these islands, and is building up travel in and across the Pacific by other routes. The chamber of commerce in this connection adopted the following resolution on December 3, 1903, as its sense:

Whereas, the operation of the United States navigation laws prevents the carrying of passengers between the Pacific coast ports of the United States mainland and Honolulu in other than American vessels, thereby seriously inconveniencing the business public and discouraging intending tourists from visiting this Territory;

Whereas, the coasting laws of the United States are applied in a manner not contemplated by their framers; in fact, noncontiguous territory until now has never been included in the United States;

Whereas, travel to and from this port is hampered by the fact that only seven American steamships are now in the passenger trade between Honolulu and the mainland, while an equal number of foreign steamers, carrying the United States mail, ply between this port and San Francisco;

Whereas, the restrictions of travel between this port and the mainland to American vessels does not secure to them the transportation of all passengers destined from these islands to the American continent, but diverts to British Columbia a large number of wealthy tourists and business men who would otherwise travel through the United States;

Whereas, for the same reasons, outward-bound passengers and tourists from the Pacific coast are diverted from Honolulu to Japan and China:

Be it resolved, That the Territorial Delegate be requested to lay the above facts before Congress, with a view to the modification of the existing navigation laws to the extent that passenger travel between this port and the Pacific coast ports of the United States be not restricted to American vessels.

Present conditions, so far as passenger travel is concerned, show clearly and positively that no consideration is given by the several ocean transportation companies, either from the standpoint of probable expansion of their business here or from any appreciation of the needs or requirements of the people of this Territory; on the contrary, there is every indication of a mutual understanding between these companies to maintain the highest rates the traffic will bear. Unfortunately for this community, the United States shipping laws serve only to support and foster this, and in the absence of competition our people are, so far, helpless. With the exception of one local boat, all steamers call-

ing at this port are through boats, having their terminus either at oriental points or in the Australian colonies, and as a consequence the trade they may or may not pick up at Honolulu is a matter of more or less indifference to them, or apparently so, as they appear to be united in maintaining fares between Honolulu and San Francisco for a round trip ranging between 12 per cent and 50 per cent higher than between other ports in the Pacific. The following statement, compiled from the published schedule of the Oceanic Steamship Company, will substantiate this:

A round-trip ticket between San Francisco and Honolulu costs \$135. Distance traveled, 4,200 miles; rate per mile, 3.21 cents. Taking this rate as a basis, the following result is shown:

	Rate.	Distance.	Per mile.	Per cent.	Days on trip.	Rate per day.
		<i>Miles.</i>	<i>Cents.</i>			
San Francisco and Honolulu and return.	\$135. 00	4, 200	3. 21	0	12	\$11. 25
Tahiti	150. 00	7, 316	2. 18	47	22	7. 00
Samoa	225. 00	8, 740	2. 57	25	26	8. 70
Fiji	285. 00	9, 970	2. 85	12	30	9. 505
Auckland	300. 00	11, 860	2. 53	27	36	8. 33
Sydney	300. 00	14, 200	2. 10	53	42	7. 15

While no doubt the explanation will be made that there is a subsidy paid for mails carried between some of the above ports, it does not appear reasonable that it should cost our traveling public 53 per cent more to go to San Francisco and return than it does passengers from Sydney in proportion to the service rendered. If the same relative rates were charged to Honolulu as are now asked to Tahiti, which would mean about \$90 for the round trip, the increased travel to Hawaii would soon prove more profitable.

Inquiry into the subsidies paid by the United States Government for the carriage of mails by American steamers on trans-Pacific runs shows that the total amount of mail subsidies paid by the United States Government for this service in 1903 was \$431,251.26. These payments are made to the different transportation companies concerned when running to foreign ports, such as oriental points or to the Australian colonies, on the basis of \$4 per mile traveled on the outward trip for steamers of the first class and \$2 per mile traveled on the outward trip for steamers of the second class. The second class is limited to steamers of not less than 5,000 tons gross measurement. The oceanic steamers running to the colonies are rated as being 6,200 tons, and would, therefore, come under the second class. The distance to Sydney from San Francisco is 7,210 miles. At \$2 per trip per mile this would be a subsidy amounting to \$14,420 per trip, and seventeen trips made by these steamers per annum gives a total subsidy paid to them by the United States Government for mail service; and also, in consideration of their being subject to requisition by the Government in time of war and being, therefore, constructed under certain prescribed rules, would amount to \$245,140 for the services performed by the steamers *Sierra*, *Sonoma*, and *Ventura*. In addition to this the steamship *Alameda* is paid \$15,000 per annum as a special contract, and there is a further subsidy of \$7,000 per annum for the run from Samoa to San Francisco as a direct subsidy. This makes a total amount paid to the Oceanic Steamship Company of \$267,140 under United States laws and including

additional contracts for domestic service. These statements are compiled from postal reports and are believed to be correct.

Between Hilo and San Francisco a steamship line has been established, with one steamer running direct between the two ports and making the round trip in about four weeks. This has proved a great convenience to both passengers and shippers on the island of Hawaii, and the service is stimulating a large export demand in bananas, which settlers there are now producing in considerable quantities since the opportunity has been offered them of shipping direct to market.

APPENDIX.

COMMUNICATIONS FROM PUBLIC ORGANIZATIONS IN HAWAII RECOMMENDING APPROPRIATIONS.

A.

Letter from the Honolulu Chamber of Commerce.

HONOLULU, HAWAII, August 12, 1904.

SIR: The Chamber of Commerce of Honolulu, through its committee on legislation and public improvements, solicits your assistance in the following matter:

We deem it a matter of national importance that the port of Honolulu be, and continue to be, a "clean" port. It is not too soon to prepare for the opening of the Panama Canal. The tropical diseases rampant at the Isthmus are unknown here as yet. Our experience with oriental epidemics convinces us that our equable climatic conditions afford a ready culture for any new disease which commerce may bring to our shores.

That, against the opening of the canal, Honolulu be made disease proof is a national matter. It will cost less in money and human life to have such work as may be necessary done before the port becomes inoculated.

Our petition is that the President by Executive order provide for a Honolulu sanitary commission to look over the problem on the ground and report a project thereon. We believe this may be done without expense, or rather without a special appropriation by Congress, by having the Surgeon-General of the Public Health and Marine-Hospital Service and the War Department each detach an officer to serve on this commission, one a trained physician and the other a sanitary engineer.

With this report made by authority, the necessity of Federal assistance in carrying out its recommendations may be urged on Congress later with some hope of success.

If you can indorse this prayer of ours in your letter of transmittal, we ask you to do so.

Respectfully, yours,

THE CHAMBER OF COMMERCE OF HONOLULU,
By JAMES A. KENNEDY,

F. J. LOWREY,

Committee on Legislation and Public Improvement.

Hon. G. R. CARTER,

Governor of Hawaii, Honolulu.

B.

Letter from the Honolulu Chamber of Commerce.

HONOLULU, HAWAII, August 12, 1904.

SIR: Allow us to append to our letter of even date the following statement of matters which we desire to bring to your attention, but which we think can be accomplished without asking direct appropriations from Congress:

1. The first of these concerns the surveys for the necessary dredging work in Honolulu and Pearl Harbor. We believe that strong representations from you to the Secretary of War will result in having suitable reports immediately prepared.

2. Until such time as the Island of Oahu shall be adequately provided with fortifications we urge upon you the necessity for having stationed here continuously some coast-defense vessel of the Navy. It is our hope that a request from the governor to the Secretary of the Navy may result in the stationing of some such vessel in our waters.

3. For our fellow-citizens now segregated as lepers in the settlement of Molokai we ask that a surgeon of the United States Marine-Hospital Corps may be stationed at Kalaupapa for the purpose of scientifically studying the disease of leprosy in the hope of ultimately finding a cure.

4. It is not too soon to prepare Honolulu for the opening of the Panama Canal. The tropical diseases rampant at the Isthmus are unknown in Hawaii, and our experience with oriental diseases is that they find a ready culture under our equable climatic conditions. We believe that extensive public works may have to be constructed before Honolulu can be considered disease proof; that to have Honolulu a clean port concerns the entire Pacific coast of the United States, and that being a national matter, the Territory should have assistance by the Federal Government. In order that this problem may be approached satisfactorily we ask you to represent the situation to the President with the request that he direct the Surgeon-General of the Marine-Hospital Service to detach a surgeon, and the Secretary of War to direct that an engineer of the United States Army be ordered to act with this surgeon, the two of them to compose a commission to study the problem on the ground and to report not only the necessity for the work, but plans and specifications for it. We transmit herewith a letter for this purpose.

5. We understand that there are two irrigation surveys now authorized by law, one being under the Department of Agriculture and the other under the Geological Survey, and that this work may be extended over Hawaii. Much of the wealth of these islands is due to irrigation, and the possibilities of further agricultural development depend, in large measure, on the extension of irrigation. We ask you, therefore, to use your influence with the authorities in Washington to see if one or both of these surveys can not be extended to Hawaii.

6. We ask you also to use your best efforts to secure the making of a soil survey of these islands by the Department of Agriculture. It is our understanding that this work can be done under existing laws if the Secretary of Agriculture sees fit to authorize it.

While we are on this subject of federal expenditures in the Territory we desire to call again to the attention of the Federal Government the desirability of perfecting the plans already made for an army post on

the highlands of Waianae-uka, on the Island of Oahu, which land has already been set apart as a military reservation. It is submitted that if a halfway station between San Francisco and Manila be maintained there for the acclimatization of our troops to the Tropics they would be ready for more efficient service upon reaching the Philippines.

This tract of land lies directly back of Pearl Harbor, and has an elevation of about 800 feet. An abundance of pure water, good drainage, trade winds, cool nights, ample room for rifle and cannon practice and for maneuvers leave little more to be desired for the above purpose.

In these various matters we stand ready to lend you all the assistance in our power.

All of which is respectfully submitted.

THE CHAMBER OF COMMERCE OF HONOLULU,
By JAMES A. KENNEDY,
F. J. LOWREY,
Committee on Legislation and Public Improvement.

Hon. G. R. CARTER,
Governor of Hawaii, Honolulu.

C.

Letter from the Merchants' Association of Honolulu.

HONOLULU, HAWAII, August 19, 1904.

SIR: The Merchants' Association of Honolulu, in reply to the letters received from Acting Governor A. L. C. Atkinson under dates of July 5 and 28, beg to state:

The wholesale and retail business in its various branches has faced a serious depression in trade during the past two years.

There are several causes to which we can look upon as having brought about the present discouraging state of the mercantile community, among which we would call special attention to—

(1) The loss of customs revenue amounting to about \$5,000,000 during the past four years since annexation;

(2) The forced Territorial expenditure for dredging Honolulu Harbor and upon light-houses and their maintenance;

(3) The inconsistent showing made by a comparison of receipts and returns by the Federal Government as put forth in the following data:

The United States Government collects annually per capita from Hawaii \$8.52.

The United States Government returns directly per capita annually to Hawaii \$1.62.

The United States Government expends annually per capita for its mainland population \$7.97.

(4) Decrease in population, especially among our most valuable workers, the Portuguese, a large number of the latter having been compelled to seek work in other countries on account of the Territorial government being unable to continue necessary work on public buildings, roads, and bridges, owing to shortage of funds.

To bring business back to its former flourishing condition, and in view of the large amount of profit gained by the Federal Treasury directly from Hawaii, we would urge strong representations be made

to Congress with a view of having a fair proportion of the Federal receipts from Hawaii expended for necessary improvements in this Territory.

We submit our most urgent necessities and reasonable requests to be—

(1) Continued dredging and enlargement of Honolulu Harbor to the end of our being able to dock with safety the largest merchant or naval vessels;

(2) A large Federal building which will accommodate the departments of customs, post-office, justice, and administration, and thus do away with the great inconvenience both to the Federal officers and the public by reason of the present scattered locations of the different departments;

(3) Naval station at Pearl Harbor, the opening of which would bring these waters into practical use and make possible the direct shipment of about 100,000 tons of produce per annum.

(4) *Fortifications and army post.*—It is our understanding that these two items are already assured, but we would suggest that efforts be made which will result in the early commencement of this work.

(5) Breakwater at Hilo, *the only possible harbor on the island of Hawaii.*

The work necessitated by the above-suggested improvements would bring to our midst a most desirable class of mechanics, artisans, and laborers, on whom the mercantile interests depend for the life of trade.

(6) *Transport and naval supplies.*—We particularly request that your influence be exerted on the Navy and War Departments in order that Honolulu merchants be given an opportunity to furnish supplies for the transports and war vessels instead of the departments shipping goods to Honolulu to meet vessels expected to arrive here, notwithstanding the fact that our local keen competition would in most cases result in a saving to the Department.

(7) We would respectfully suggest that the Territorial government make up an account against the Federal Government for each and every item expended for light-houses and buoys from June 14, 1900, to the date upon which this service was taken over by the Federal Government, attach vouchers thereto, and have their correctness certified to by the proper local Federal officer, and the same be forwarded to the Department at Washington. This amount will be found to be \$43,421.76. We would further recommend that the same action be taken with the Territorial expenditure on dredging Honolulu Harbor only from June 14, 1900, to the date of last expenditure, which items will be found to approximate \$132,000, or the aggregate of both dredging the harbor and light-houses and buoys approximately \$175,420.

We consider the granting of the above-enumerated requests as absolutely necessary to restore and put into circulation at least a part of the large revenue received by the Federal Government from this Territory. Such a condition as now exists can not last long without more serious depression than we are now suffering.

Thanking you for the opportunity of making these representations, we beg to remain,

Very respectfully,

GEO. W. SMITH,
President Merchants' Association.

Hon. GEO. R. CARTER,
Governor Territory of Hawaii.

D.

Letter from the Hilo Board of Trade.

HILO, HAWAII, August 4, 1904.

SIR: In compliance with your request under date July 28, 1904, we beg to make the following suggestions:

(1) That Congress acquire that land belonging to the Territory of Hawaii, situate in Hilo and bounded on the north by the Wailuku River, south by Waianuenue street, east by Bridge street, and on the west by Pitman street, and erect thereon a suitable building including vaults for the use and occupation of the United States post-office, United States land office, United States courts, United States custom-house, surveyor of the port, United States internal-revenue office, and other Federal offices. That Congress appropriate the sum of \$150,000 for defraying cost of said building.

(2) That Congress appropriate the sum of \$100,000 to enable the Secretary of War to make a survey and estimate for the construction of a breakwater from the ocean along Blond Reef to Cocoanut Island.

(3) That an amount of \$10,000 be appropriated for the establishing of a United States marine-hospital service in connection with the Hilo hospital.

(4) That an amount of \$10,000 be appropriated for the erection of a light-house at Lelewi Point.

There are many and various reasons why we should have the above mentioned appropriations, a few of which we mention briefly as follows:

The Island of Hawaii is the largest and richest of the whole group. It has a greater area than all the other islands put together. It has an area of 4,200 square miles as against the combined area of all the other islands of 2,530 square miles. It has a population of 46,843 or 34 per cent. of the whole group. During the year 1903 it produced 170,665 tons sugar as against 437,991 tons for the whole group; approximately 39 per cent of the whole.

The value of real and personal property as taken from the tax assessor's books is \$27,559,038, an increase of \$1,793,369 over that of the year 1902.

Money-order business at the Hilo post-office in 1901:

Orders issued	8,570
Amounting to.....	\$288,116.13
Orders paid out	2,420
Amounting to.....	\$45,114.65

For the first eleven months of 1902:

Orders issued	9,862
Amounting to.....	\$292,511.25
Orders paid out	2,648
Amounting to.....	\$48,523.40

Showing an increase for the past eleven months over the previous year of 1,520 orders handled, amounting to \$7,804.07.

We have been unable to obtain any figures from the postmaster on this subject at the present time.

The present wooden barn used for a post-office is not only inadequate but is unsafe; so much so that when any large amount of cash is on hand the postmaster feels it necessary to keep a man on the premises all night.

Our collector of the port has no place to transact his business other than in his private office.

Our Federal judge is allowed only by the courtesy of the circuit judge to hold his court in the circuit-court room, there being no other place available.

The internal revenue officers transact their business in their bedrooms at the hotels; the surveyor of the port has his office in a small shed.

The United States commissioner and other Federal officers are compelled to transact their business in private offices.

The land suggested herein for a Federal building site is owned by the Territorial government and is under lease to various tenants whose terms expire within twelve months from date. For this the government would not be put to any expense. The site is admirably adapted for the purpose.

Hilo is the largest town on this island and is second in importance to Honolulu, and nearly the whole of the products of this island pass through Hilo to the market.

Assessed value of real estate and personal property.

For the district of Hilo in 1897 amounted to.....	\$5, 460, 631
For the district of Hilo in 1903 amounted to.....	11, 210, 321

Showing an increase in six years of.....	5, 749, 690
------------------------------------------	-------------

On the entire Island of Hawaii the assessed value of real and personal property in 1897 was.....	13, 504, 831
The assessed value of real and personal property in 1903 was.....	27, 559, 038

Showing an increase for six years of.....	14, 054, 207
-------------------------------------------	--------------

Total number of vessels entered during—	
1897.....	37
1903.....	74

Total value of exports for the year ending June 30, 1904.....	\$3, 993, 871
Total value of imports for the same period was.....	1, 452, 535

The harbor at Hilo is practically an open roadstead with ample depth of water for vessels of the largest draft. Vessels lying at anchor in the harbor are liable at any moment to be caught in a northeast gale, and are in consequence in great danger of being cast on the reef or ashore, as there is no protection. Vessels are sometimes unable to discharge any of their cargo for ten to twelve days at a time during a northeast swell. The bay is the most commodious natural harbor in the Hawaiian Islands, it having an area of over 1,500 acres, and an available wharfage frontage of $1\frac{1}{2}$ miles. The entrance to this harbor is 1 mile wide, with a depth of water from 8 to 9 fathoms (as a reference to the chart will show), thus enabling vessels to enter with perfect safety either night or day.

The Hilo Railroad Company has constructed a wharf 100 feet by 800 feet long, at a cost of \$100,000. Deep-sea vessels do not use this except in the calmest weather, on account of the heavy swell and undertow, and as a consequence nearly every ton of freight is either loaded or discharged by means of lighters or scows between ship and shore. This can be obviated only by a breakwater.

We understand that a site for a quarantine station in Hilo has been selected by Doctor Cofer, the Federal quarantine officer, and that a

complete equipment, valued at \$10,000, is now in Honolulu awaiting the authorization for a proper building. The importance of immediate action in this matter is obvious.

A second-class light is needed at East Point. All vessels coming from the mainland come in from the direction of that point.

In view of the foregoing, therefore, we earnestly recommend the favorable consideration by Congress in connection with the suggestions enumerated.

Respectfully submitted.

THE HILO BOARD OF TRADE,
By E. N. HOLMES, *President*.
By A. VICARS, *Secretary*.

A. L. C. ATKINSON, ESQ.,
Acting Governor Territory of Hawaii, Honolulu.

E.

Letter from the Wailuku Improvement Association.

WAILUKU, MAUI, August 13, 1904.

SIR: In reply to your wireless communication of July 28, 1904, to Mr. A. N. Kepoikai, which reads as follows: "What recommendations from Wailuku Improvement Association for Federal improvements for Maui," the undersigned, a committee duly appointed for that purpose in open session of the Improvement Association of Wailuku District, do hereby most respectfully make the following recommendations:

First. A Federal building to be erected in Wailuku on a suitable site hereafter to be selected, the same to be large and commodious enough to provide quarters for the following branches of the United States Government: Post-office, chambers and court room for United States district attorney, clerk of the Federal court, United States marshall, internal-revenue officers, United States commissioner, and such other branches of the Federal Government as the Department may see fit to provide.

For the erection of a building suitable for the above purposes we would recommend the expenditure of \$75,000.

Second. We would further recommend a complete and minute geodetic survey of the islands of Maui, Molokai, Lanai, and Kahoolawe, and the proper charting thereof.

Third. We would further recommend the erection of proper and suitable lights at the following points, to wit: Molokai Point, Kamalo, Honokohau, Kahului, Huelo, Nahiku, Hana, Kipaulu, Makena, Maalaea Bay, Lahaina, Kaanapali, Maunalei, Lanai, Molokini, north of Kahoolawe, and south of Kahoolawe. Regarding Lahaina light we would recommend that the same be reconstructed in such a manner as to be infallibly distinguished from all other lights in that vicinity.

Fourth. We would recommend the construction of a breakwater at Kahului to extend from the shore to a point now commonly known as the American Girl Rock, or a distance of 2,600 feet. The construction of such a breakwater would afford perfectly safe anchorage for numerous vessels, and will besides make possible the construction of

permanent and commodious wharves, an undertaking which has so far been rendered impossible by the absence of a breakwater. Exhaustive surveys have been made at the instance of the Kahului Railroad Company, which prove beyond a doubt that the construction of a breakwater is not alone highly feasible, but that the same can be undertaken and carried on to a successful finish for a sum not exceeding \$250,000. We would therefore recommend the appropriation of the above-named amount for a breakwater at Kahului.

In support of the above recommendation we would respectfully set forth the fact that the value of the exports and imports of Kahului alone amounts to some \$6,000,000 per annum. In addition the value of ships, owing partly to their large tonnage, and to the fact that at the time of their arrival they already contain large and valuable cargoes, must be from three to four times the value of the Kahului business.

Respectfully submitted.

R. W. FILLER, *Chairman.*

C. D. LUFKIN.

W. F. CROCKETT.

HUGH M. COKE.

W. G. SCOTT.

A. N. KEPOIKAI.

Hon. A. L. C. ATKINSON, .

Acting Governor, Honolulu, Hawaii.

TERRITORIAL REGISTER AND DIRECTORY FOR 1904.

TERRITORIAL OFFICIALS.

GEORGE R. CARTER, Governor.
A. L. C. ATKINSON, Secretary.
LORRIN ANDREWS, Attorney-General.
C. J. CAMPBELL, Treasurer.
C. S. HOLLOWAY, Superintendent Public Works.

A. T. ATKINSON, Superintendent Public Instruction.
J. H. FISHER, Auditor.
F. D. CREEDON, Private Secretary to Governor.

JONAH K. KALANIANA'OLE, Delegate to Congress.

DEPARTMENT OF JUDICIARY.

SUPREME COURT.

Hon. W. F. FREAR, Chief Justice.
Hon. A. S. HARTWELL, Associate Justice.
Hon. F. M. HATCH, Associate Justice.
HENRY SMITH, Clerk Judiciary Department.
Hon. J. T. DE BOLT, First Judge, First Circuit, Oahu.
Hon. GEORGE D. GEAR, Second Judge, First Circuit, Oahu.

Hon. W. J. ROBINSON, Third Judge, First Circuit, Oahu.
Hon. A. N. KEPOIKAI, Second Circuit, Maui.
Hon. J. A. MATTHEWMAN, Third Circuit, Hawaii.
Hon. C. F. PARSONS, Fourth Circuit, Hawaii.
Hon. W. J. HARDY, Fifth Circuit, Kauai.

FEDERAL OFFICIALS.

DEPARTMENT OF JUSTICE.

UNITED STATES DISTRICT COURT.

Hon. SANFORD B. DOLE, Presiding Judge.
R. W. BRECKONS, United States Attorney.
J. J. DUNNE, Assistant United States Attorney.
E. R. HENDRY, United States Marshal.
F. L. WINTER, Office Deputy United States Marshal.

FRANK L. HATCH, Miss F. M. HANDY, Deputy Clerks.
A. F. JUDD, United States Commissioner.

TREASURY DEPARTMENT.

CUSTOMS DIVISION.

E. R. STACKABLE, Collector.
R. C. STACKABLE, Special Deputy Collector.
RAYMER SHARP, Chief Examiner.
E. A. JACOBSON, Deputy Collector.
B. GRIGGS HOLT, United States Shipping Commissioner.

JOHN B. DIAS, Deputy United States Shipping Commissioner.
J. C. RIDGWAY, Deputy Collector, Hilo.
E. H. BAILEY, Deputy Collector, Kahului.
E. A. FRASER, Deputy Collector, Mahukona.
W. D. MCBRYDE, Deputy Collector, Koloa.

IMMIGRATION SERVICE.

F. M. BECHTEL, Inspector in Charge.

R. C. BROWN, G. R. CULLEN, and R. L. HALSEY.

Chinese Bureau.

JOSHUA K. BROWN, Chinese Inspector in Charge.

INTERNAL-REVENUE SERVICE.

R. H. CHAMBERLAIN, Collector Internal Revenue.
H. D. COUZENS, Chief Deputy Collector.

W. F. DRAKE, Division Deputy.
A. M. WEBSTER, Deputy and Gauger.

COAST SURVEY DIVISION.

W. D. ALEXANDER, Assistant in United States Coast and Geodetic Survey, in charge of Branch Office.

S. A. DEEL, Aid in United States Coast and Geodetic Survey, in charge of Magnetic Observatory near Sisal Station, Ewa.

DEPARTMENT OF AGRICULTURE.

HAWAII EXPERIMENTAL STATION.

JARED G. SMITH, Expert and Special Agent in Charge.
F. E. CONTER, Expert and Special Agent.

D. L. VAN DINE, Expert and Special Agent.

POST-OFFICE DEPARTMENT.

LORIN H. BRICKET, Inspector in Charge.
 GEORGE W. CARR, Assistant Superintendent
 Railway-Mail Service.
 JOSEPH M. OAT, Postmaster,
 L. T. KENAKE, Cashier and Assistant Postmaster.

JOHN T. STAYTON, Assistant Cashier.
 GEORGE L. DESHA, Chief Registry Clerk.
 F. E. COLBY, Chief Money-Order Clerk.
 W. C. KENAKE, Chief Mailing Clerk.
 E. M. BROWN, Chief Distributor.

WAR DEPARTMENT.

UNITED STATES NAVAL STATION, HAWAII.

Capt. HENRY W. LYON, U. S. Navy, Commandant.
 Lieut. Commander A. P. NIBLACK, Captain of Yard.
 U. S. G. WHITE, U. S. Navy, Civil Engineer.

W. E. TAYLOR (retired), Surgeon, Medical Inspector.

UNITED STATES ARMY DIVISION.

Lieut. Col. JOHN MCCLELLAN, Artillery Corps,
 Commanding Camp McKinley.

Capt. C. F. HUMPHREY, Jr., Quartermaster U. S. Army.

PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE.

L. E. COFER, P. A. Surg., U. S. M. H. S., In Command.
 M. J. WHITE, P. A. Surg., U. S. M. H. S.
 W. C. HOBODY, P. A. Surg., U. S. M. H. S.
 R. L. WILSON, Asst. Surg., U. S. M. H. S.
 A. N. SINCLAIR, Acting Asst. Surg., U. S. M. H. S.
 WILLIAM T. JAMES, Acting Asst. Surg., U. S. M. H. S.
 FRANK L. GIBSON, Pharmacist, U. S. M. H. S.
 JOHN G. GRACE, Acting Asst. Surg., U. S. M. H. S.,
 Hilo, Hawaii.

JOHN WEDDICK, Acting Asst. Surg., U. S. M. H. S.,
 Kahului, Maui.
 R. H. DINEGAR, Acting Asst. Surg., U. S. M. H. S.,
 Kihel, Maui.
 R. L. PETERS, Acting Asst. Surg., Lahaina, Maui.
 E. S. GOODHUE, Acting Asst. Surg., U. S. M. H. S.,
 Koloa, Kauai.
 B. D. BOND, Acting Asst. Surg., U. S. M. H. S.,
 Mahukona, Hawaii.

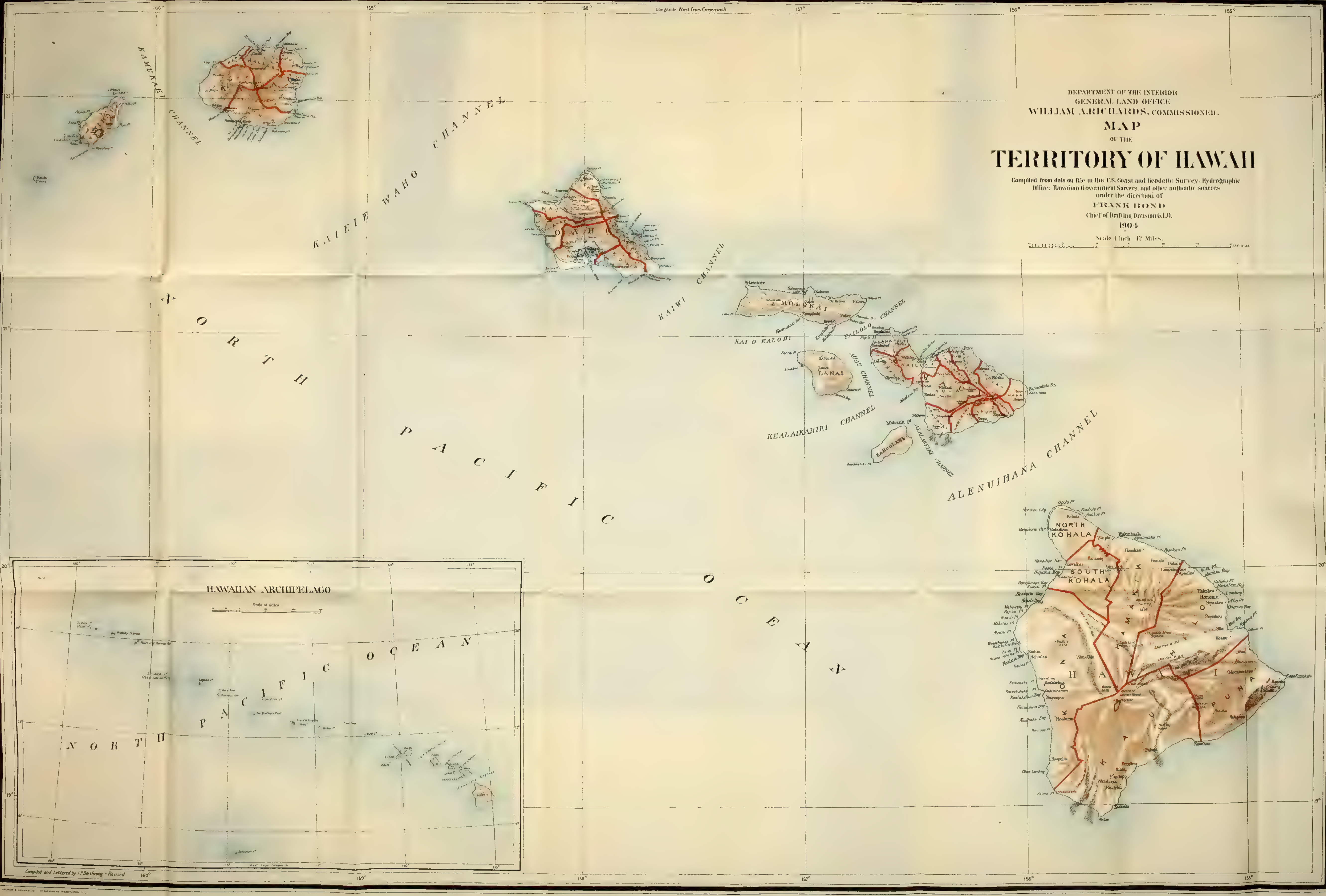
DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
WILLIAM A. RICHARDS, COMMISSIONER.

MAP
OF THE
TERRITORY OF HAWAII

Compiled from data on file in the U.S. Coast and Geodetic Survey, Hydrographic
Office; Hawaiian Government Surveys, and other authentic sources
under the direction of
FRANK BOND
Chief of Drafting Division G.L.O.
1904

Scale 1 inch = 12 Miles.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000





REPORT OF THE COMMISSIONER OF THE INTERIOR
FOR PORTO RICO.

REPORT
OF THE
COMMISSIONER OF THE INTERIOR FOR PORTO RICO.

EXECUTIVE MANSION, PORTO RICO,
San Juan, July 30, 1904.

SIR: I have the honor to forward herewith the fifth annual report of the operations of the department of the interior of Porto Rico, as requested in your letter of June 24, 1904, to the governor of Porto Rico.

Respectfully,

BEEKMAN WINTHROP,
Governor.

The SECRETARY OF THE INTERIOR,
Washington, D. C.

DEPARTMENT OF THE INTERIOR OF PORTO RICO,
OFFICE OF THE COMMISSIONER,
San Juan, July 29, 1904.

SIR: I have the honor to acknowledge receipt by reference from the governor of Porto Rico of your letter of date June 24, 1904, inviting his attention to the requirements of section 24 of the act of Congress approved April 12, 1900, and requesting him to cause the matter to be brought to the attention of the commissioner of the interior for compliance by him with the requirements of the law. In response thereto I respectfully submit my fifth annual report as commissioner of the interior for Porto Rico.

DEPARTMENTAL ORGANIZATION.

The department of the interior has remained organized as stated in my last report, with the exception that on April 1, 1904, the bureau of health was, pursuant to an act of the last session of the legislative assembly, transferred to the administrative control of the director of health, charities, and corrections, a newly created office. At the same session the bureau of agriculture was abolished, to take effect July 1, 1904, and a division of disbursements and accounts was created in the department of the interior, doing away with the position of a disbursing officer in each bureau, as heretofore required.

PUBLIC LANDS AND BUILDINGS.

The only public lands and buildings now belonging to the Federal Government are such as were reserved by the several proclamations of the President for the use of the Army, Navy, and other public purposes, and over which the insular government has no control. Portions of the lands described in some of the proclamations, particularly those reserved for the Navy, are insular, but it has been understood and agreed from the beginning that these parcels would be transferred to the Federal Government, and the governor was so authorized by legislative enactment. But points of difference arose relative to the correct interpretation of the description of a tract of 80 acres on San Juan Island and extending to the bay. The matter was submitted to the attorney-general of Porto Rico, and his opinion, with the papers and maps in the case, was laid before the Attorney-General of the United States, who has recently rendered his decision, necessitating a new survey and readjustment of the lines of the tract, which survey is now being made by representatives of this department and the Navy. It is expected that the report will be satisfactory to all parties concerned and that the whole matter will come to a speedy conclusion.

The work of the bureau of public lands, limited to the facilities afforded by a very small appropriation, has been confined to the inspection and classification of the most important tracts of land belonging to the people of Porto Rico and to the investigation of titles to property claimed by individuals. The labor performed and the results obtained have been important in the establishment of a basis for future surveys, for which it is to be hoped the legislative assembly will make early and ample provision, for the need is great as an assurance of good title and inducement to possible investors in real estate, many of whom have refrained from buying through fear of loss or expensive lawsuits. The report of the chief of the bureau of public lands (Exhibit A) presents in detail an account of the operations of his office during the year.

PUBLIC WORKS.

The good work of road building has been pushed steadily forward during the past year, and the results, to one with knowledge of the conditions as they were when American occupation of Porto Rico began and has been intimately connected with the development of the system to date, are highly gratifying. The slogan of my previous reports has been the need of roads as the first requisite to the prosperity of the island, the convenience, comfort, happiness, and contentment of the people; and now that the efforts of the four years devoted to road construction, involving the expenditure of quite \$2,000,000 generously provided by Congress, are bearing abundant fruit in rural development, easier, quicker, and cheaper transportation, my ardor and enthusiasm have in no manner cooled or abated. That which I at one time claimed as the first and best thing to do for the benefit of the people I am glad to refer to, although it is not yet wholly accomplished, as the greatest benefit enjoyed by them under any government, and as the day of my departure from Porto Rico draws near the uppermost desire of my heart is that my successor may be imbued with the same strong conviction and be provided somehow with the means to carry the work on to final completion.

The trust fund, being the refund of customs revenue collected on importations from Porto Rico into the United States prior to the establishment of civil government and appropriated by Congress for the benefit of the people of Porto Rico, amounting finally to about \$2,400,000, has been drawn upon from time to time, chiefly for construction and repair of roads and bridges and for building school-houses, until there remains an available balance of only about \$225,000. It is the opinion of the governor and heads of departments, through whom allotments are made, that it would be wise to husband a portion of these means as an emergency fund. Should this policy prevail the further construction of insular roads must end with the expenditure of the present allotments, the balances of which, on July 1, aggregated about \$120,000, for the insular revenues, under present levies, would not warrant a larger appropriation for roads than that now provided for maintenance—about \$230,000.

The idea of a loan for public improvements has been favorably discussed, indeed a loan bill has been presented at each succeeding session of the legislative assembly since the inauguration of civil government and has regularly passed the house of delegates, but while it was in name a bill to provide for public improvements its purpose and provisions were to obtain money for agricultural loans, with the hope to thereby relieve the depressed interests and particularly to revive the coffee industry.

The majority of the council members deemed it unnecessary to make a loan for public improvements so long as the trust-fund balance admitted of the construction of roads, bridges, and schoolhouses as rapidly as the facilities at hand would permit, and they could not agree that the policy of borrowing money by the government to be loaned to individuals was either wise or safe, particularly as it was susceptible of easy demonstration that the people who really needed financial assistance would be least likely to receive it. Hence the measure was regularly voted down in the council.

At the last session of the legislative assembly a bill creating a commission to negotiate a loan of not less than \$3,000,000 nor more than \$5,000,000 passed both houses and was approved by the governor. The commission performed its duty and made report to the governor, who called the legislative assembly in extraordinary session to further consider the matter. It immediately developed that the house was bent on diverting the proceeds into agricultural loans pure and simple, leaving, except by merest reference, the public-improvement feature out of sight. At one time it did seem that a majority of the council members were about to agree to the house measure, but wiser counsel prevailed and the bill was defeated.

It is quite probable that a loan bill will be introduced in the next assembly, but unless the elections result in the choice of delegates of a different frame of mind, there is small ground to hope that provision for carrying on road construction, which must end within the next six months from exhaustion of trust-fund allotments, will be made, certainly not by an increase of the rate of taxation on lands and improvements, for, while the present rate is only 1 per cent for all purposes, insular and municipal, the landowners affect to be oppressed to the verge of bankruptcy. Of course, this distress arises from the fact that whereas the burden of taxation formerly rested upon the poor, who paid toll on what they ate and wore, almost for the air they

breathed, now the rich are compelled to contribute according to their holdings.

It was proposed, and the proposition would have been accepted, to increase slightly the excise tax on certain articles, particularly rum, cigars, and cigarettes to provide for the sinking fund and interest on the loan. This provision would not have been a burden upon any person or class, yet would have yielded a revenue of about \$300,000 a year. If the legislative assembly would impose this increase and reserve the proceeds as a special fund for public improvements, the good work could be carried on, and in a few years the whole system of insular roads and bridges would be completed.

Meanwhile, the "country road" law, as time advances and the supervisors are gaining in knowledge and experience, is producing more satisfactory results. By this law the island is divided into seven districts coextensive with the election, or political, districts. Each district has three road supervisors, who have charge of the rural and vicinal roads and trails, and the boards are under the general control of the commissioner of the interior, to whom they must submit for approval their projects and estimates for road repair and improvement. As a revenue, the insular treasurer is required to pay over to the treasurer of each board of road supervisors 8 per cent of the municipal taxes collected in the district. This fund amounts to about \$50,000 a year, and while it is not large it is nevertheless sufficient for a considerable amount of road repair and maintenance. Meantime, this department, from trust-fund allotments, has constructed or put in good condition for traffic a number of the most important rural roads in the several districts, so that the supervisors have only the expense of maintaining them, which they can easily do.

As a further help to the road districts and certainly a very reasonable and just proposition, it is proposed to enact a law providing for the imposition of a poll tax on every able-bodied male over the age of 21 years, the tax to be the moderate sum of \$1, or two days' labor on the roads, as its equivalent. Such a law would enable the supervisors to carry trail improvement quickly into districts at present almost inaccessible, for provision would be made to prevent calling the men to work too far away from their homes.

The very able and complete report of the acting superintendent of public works, submitted herewith (Exhibit B), together with the reports of his subordinates in charge of the several branches of the bureau, shows clearly the condition of affairs in that all important division of the public service, and presents in detail the story of progress made in the material development of the island's most valuable interests. If every prospective reader of this report could know Porto Rico and be able to appreciate by a study of the accompanying map just what the many lengths of road constructed or repaired and pointing toward the interior mean to thousands of poor farmers and laborers, the magnitude and value of the work done and underway would be vastly more impressive than mere words can accomplish. There were under insular maintenance on July 1, 573 kilometers of completed roads, 305 of which have been constructed since October 18, 1898. In addition to the above the government has built and turned over to the district supervisors, 42.75 kilometers of vicinal road. Prior to January 1, 1905, there will be completed, not included in the above, of insular roads 111.8 kilometers, of vicinal roads 14 kilo-

meters, which will make a grand total of 473.55 kilometers of road constructed during the six years of American occupation as against 268 kilometers during the four hundred years of Spanish control.

The completion of the road from Arecibo to Ponce, 85 kilometers in length, is worthy of special mention. Construction was begun by the Spanish authorities many years ago. At the date of American occupation they had built about 20.5 kilometers. The military authorities promptly took up the work, and the insular government has vigorously pursued it. On July 1 the last section was finished, and the highway is open to traffic. This road shortens the travel time between San Juan and Ponce at least three hours. It is of first-class construction throughout, and presents a panorama of the most magnificent scenery, rivaling the views of any of the famed roads of Europe. As its attractions become known it will undoubtedly grow in favor with tourists, who will find it more attractive and beautiful than the popular so-called military road.

The retirement of Mr. Adam Stierle in February from the position of superintendent of public works was a regrettable incident. Mr. Stierle's attainments as a civil engineer, his long experience on works of magnitude and importance, and his fine executive ability combined to fit him for the place, and but for the fact that the assistant superintendent, Mr. Pedro F. Fernandez, appointed to succeed him, happened to possess many of the same good qualities and is thoroughly familiar with the details of the work and duties of the office, the resignation of Mr. Stierle, offered that he might accept a more desirable place, could hardly have been considered at the time.

BUREAU OF INSULAR TELEGRAPH.

The report of the superintendent of insular telegraph covers fully and interestingly the development and operations of the system during the past year. It will be noted that the lines have reached out, several stations have been added, and the business, both in volume and receipts, has grown. This branch of the service is fortunate in having had as superintendent, from the date of its organization, a person who is not only an expert in the theory and practice of telegraphy and possessed of admirable executive ability, but has likewise faith in and the knack to utilize native ability. In the beginning the serious problem to be solved in connection with the establishment of the telegraph system seemed to be the probable inability to interest native young men and boys to the extent of inducing them to study and practice the art. The idea of establishing a school for young ladies was the outgrowth of apprehension that young men and boys would not respond to the inducements offered. The school evidently proved an incentive to both sexes, with the result that operators, male and female, and good ones, are sufficiently plentiful for the requirements of the service.

The last legislature made fairly liberal provision for the extension of the system, but not sufficient to cover all of the lines projected in the plans of the bureau. The very best possible use will, however, be made of the means at command, in hopes that the remaining gaps will appeal so strongly to the good judgment of the members of the assembly as to induce them to make an appropriation next year large enough to complete the system.

AGRICULTURE AND MINES.

The report of the chief of the bureau of agriculture and mines (Exhibit D) contains full information relative to the agricultural interests of the island. As hereinbefore stated, this bureau was abolished by act of the last legislative assembly. No one seems able to offer a sufficient explanation of the action. That there was need for economy in the construction of the budget was a plain enough proposition, but that a bureau so useful to the agricultural interests, the basic structure of all prosperity to the island, and requiring only small provision, should be abolished does not seem reasonable or wise.

The bulletins issued by the bureau contained carefully selected matter of practical value; the growing demand for the bulletins and increasing correspondence elicited by the contents proved their value to the farmers. It is to be hoped that the next legislature will recognize the justice of providing for the continued publication of these useful pamphlets.

ARCHIVES AND RECORDS.

As shown by the report (Exhibit E) of the chief of the division of archives, the many valuable records of the several departments have been properly classified, indexed, and filed. It is now an easy matter for interested parties to trace quickly and accurately the history of any subject of public concern.

CONCLUDING REMARKS.

In concluding this, my last annual report, for it is not my purpose to continue longer than a few months more in the insular service, I can but repeat, in substance, the tribute I endeavored to pay in my report for 1902-3 to the loyalty, efficiency, and integrity of the employees of the department of the interior. Nearly all of them are natives, but in their grasp of duties under changed conditions, their devotion and quickness of comprehension, they have proved themselves fully competent and wholly reliable, entitling them to the respect, regard, and confidence of the head of the department, which feelings I shall ever entertain for them, one and all.

Very respectfully,

W. H. ELLIOTT,

Commissioner of the Interior for Porto Rico.

Hon. ETHAN ALLEN HITCHCOCK,

Secretary of the Interior, Washington, D. C.

(Through the Governor of Porto Rico.)

EXHIBITS.

EXHIBIT A.

REPORT OF THE ACTING CHIEF OF THE BUREAU OF PUBLIC LANDS.

DEPARTMENT OF THE INTERIOR OF PORTO RICO,
BUREAU OF PUBLIC LANDS,
San Juan, P. R., July 1, 1904.

SIR: In accordance with the contents of your communication of the 16th ultimo, I have the honor to submit to you statements of the work accomplished by this office from its installation, July 1, 1903, to July 1, 1904, as follows:

First. Statement of the work of inspection, investigation, and classification of the lands belonging to the people of Porto Rico, in the jurisdictions of Manati, Arecibo, Vega Baja, Yauco, Guayanilla, and part of Utuado, coupled also with an investigation of many private properties, on suspicion that the whole or part were public property.

Second. Statement of the regular office work transacted during the period from July 1, 1903, to June 1, 1904.

Third. Statement of deeds filed in the bureau, during the same period, of lots of lands acquired by the people of Porto Rico for the purpose of schools, a jail, and the institute of vaccination.

This office has also been busy entering in the register book of the people of Porto Rico 74 properties, including in this number all those acquired for the purpose of schools, a jail, etc.

A careful inspection of the "expedientes" on file in the bureau is also being effected, and out of the 7,490 on file, so far 1,121 have been separated and recorded in a special inventory for later transference to the division of archives, as they are not of further use in the bureau.

Finally I deem it my duty to mention that the inspector of public lands continues in Utuado to carry onward the completion of the work of inspection, investigation, and classification in that jurisdiction.

Very respectfully,

JOSÉ SUAREZ,
Acting Chief Bureau Public Lands.

Hon. W. H. ELLIOTT,
Commissioner of the Interior, San Juan, P. R.

APPENDIX 1.

Statement of the work of inspection, investigation, and classification of lands belonging to the people of Porto Rico in the jurisdictions of Manati, Arecibo, Vega Baja, Yauco, Guayanilla, and part of Utuado, coupled with an investigation of private properties on suspicion of encroachment.

MANATI-ARECIBO.

Caño de Tiburones, situated between the jurisdictions of Manati and Arecibo, west of the town of Barceloneta, with the result of acquiring a knowledge of the quality of the land, provable extension of the same, considered in about 6,500 cuerdas, and the valuation of \$6 per cuerda for the best quality and \$4 for the lowest.

The investigation of 106 private properties surrounding the said caño, the examination of the deeds, and the verification of the same at the office of the register of the

property in Arecibo, thus bringing about the exposure of the individuals suspected of squatting on the land.

Of 16 cuerdas in barrio Bajura, jurisdiction of Manati, its valuation at \$3.50 each, being of inferior quality and little fit for cultivation. They were listed in the bureau.

A portion of 25 cuerdas in the same barrio and jurisdiction, of about the same quality as the above; valuation, \$3 per cuerda. Listed in the bureau.

A portion of 100 cuerdas, situated in barrio Rio Arriba, of the jurisdiction of Manati, of bad quality on account of its high elevation; valuation, only \$2 per cuerda. Listed in the bureau.

A portion of 50 cuerdas, same locality. Valuation being second class (\$2.50), they were not in the lists of the bureau.

Three portions of 200, 100, and 100 cuerdas, situated in the barrios of Garrochales and Palmas Altas, of the jurisdiction of Manati, which appeared in the lists as property of the people of Porto Rico. After investigation they turn out to be private property and have to be eliminated from the lists.

Two portions of 200 and 100 cuerdas in barrio Hato Viejo, in the jurisdiction of Arecibo, have been eliminated from the lists, as they prove to be private properties.

A portion of 259 cuerdas in barrio Rio Arriba, same jurisdiction as the above, under cultivation and in possession of a squatter, who has valued the lot himself at \$1,295. There was not any record in the bureau of this lot, but now it has been listed as the property of the people of Porto Rico.

Investigation of eleven more private properties in barrios Islote and Sabana Hoyos, jurisdiction of Arecibo, all showing private properties.

In barrios Rio Arriba, Florida, Garrochales, and Palmas Altas the investigation of eleven more properties, on suspicion of being public lands, resulted as above.

VEGA BAJA.

Two portions of 100 and 200 cuerdas, barrios of Pugnado Adentro and Pugnado Afuera, divided into plain land in the center and hilly and sandy ground in the remainder. The character of the subsoil does not permit of the retention of moisture, which interferes with vegetation. They have not been listed at the bureau, pending, as they are, in a suit with the treasury department.

A portion of 100 cuerdas in barrio Pugnado Afuera, known by the name of "Sabana delas Milicias." The condition of the land is identical with the last two mentioned portions. It appears listed in the bureau with an extension of 200 cuerdas. From the investigation the names of the individuals squatting in the three portions of land are known.

Investigation of 16 private properties contiguous to the mentioned three portions.

YAUCO GUAYANILLA.

A large tract comprising 5,000 cuerdas, which extends through the barrios Boca, Barinas, Susua, and Guanica in the place named "Hato Criollo." Different portions of this tract take the names of Cobanas, Mariel, Hoya Honda, Ballena, Vega Bonita, Picuas, and Carenero, in the jurisdiction of Yauco. About one-fifth only of the whole quantity of cuerdas is considered of good quality, and the estimate is \$8 per cuerda. The soil of this portion of the land is sandy, mixed with vegetable detritus, the valuation for the remainder, fully four-fifths, being only \$2. This large tract was listed in the bureau and from the investigation the names of the many squatters have been ascertained for further action.

A portion of 71.60 cuerdas situated in the port of Guanica, in the jurisdiction of Yauco, almost naked of all sort of vegetation except for some grass and mangroves. The valuation of this piece of land depends on the use it would be given on account of being near the port.

Another portion of 72.50 cuerdas in Guanica, in the place called "Limon," same jurisdiction, was listed in the bureau, but it results from the investigation that it is legally owned by the actual occupant and has to be eliminated from the lists.

A portion of 100 cuerdas in barrios Susua and Almacigo, in the place called "Quebrada Fria," same jurisdiction. The ground is hilly and of little vegetative strength; even briars do not prosper there. Valuation per cuerda, \$1. It was listed in the bureau.

Three portions of land of 600, 300, and 150 cuerdas each, known as "Las Peladas," extending through barrios Collores, Almacigo, Ranchones, and Frailes. The ground is of very poor quality, being full of loose stones, and on this account the valuation can not go higher than \$1.50 for the first lot and \$1 for the other two. They were listed in the bureau, but the extension is unknown.

Another portion of 27 cuerdas in barrio Rio Prieto, same jurisdiction. It is situated within other private properties. The land is broken and the valuation is \$8 per cuerda. Some one has squatted there, and before listing the lot in the bureau the rights of the party in possession have to be investigated.

A large portion of 1,139 cuerdas of the name of "Sierra Guilarte," in barrio De Pasto, in the old jurisdiction of Guayanilla. Clayish soil of a white and yellow hue, which retains the water from the rains, forming deep hollows, interfering with transit of man and beast and does not favor vegetation. Such poor conditions make the estimate per cuerda of \$1 appear exaggerated. This portion of land was already listed in the bureau.

In barrio Pasto, in the same jurisdiction, is another lot of 200 cuerdas, with conditions equal to the latter in every feature. They were also listed in the bureau.

One hundred and seventy-five cuerdas of mangrove land, situated in the port of Guayanilla. The value of this lot depends on the market quotation for the product the day that a sale or a lease of the land is decided upon. It was already listed in the bureau.

In the place named "Cerro Criollo," barrio Boca, of the jurisdiction of Guayanilla, there is a tract of 800 cuerdas of hilly ground, not of great elevation, full of loose stones and in the declines of the hills sandy and clayish, with the rest of old forests. As the land is not watered in any sort of way, living in the place is not possible, and the raising of cattle out of the question. On this account the estimate per cuerda can not go higher than \$4 for one-fourth of the extension and \$2 for the remainder. They were already listed in the bureau.

The investigation of 23 private properties in the jurisdictions of Yauco and Guayanilla proved that all of the owners were legally in possession of their respective holdings.

UTUADO.

Investigation and inspection on account of suspicion of being the whole or in part the property of the people of Porto Rico of 15 private properties and the deeds corresponding to the same in barrios Santa Rosa, Caguana, Angeles, Arenas, and Tetuan resulted in showing that the owners were legally in possession of the land.

Same of 41 private properties in barrios Angeles, Vivi Abajo, Vivi Arriba, Norzagaray, Jauca, Paso Palma, Caonillas y Jayuya, the result of the investigation and inspection being still pending of the examination of the deeds in the register of property at Arecibo.

JOSÉ SUAREZ,
Acting Chief Bureau of Public Lands.

APPENDIX 2.

Statement of the regular office business transacted in the bureau of public lands since its installation, July 1, 1903, to June 30, 1904.

[Formation of the lists of the lands known to belong to the people of Porto Rico, as a help and guide to the field work of the inspector of public lands.]

	To June 1, 1904.	To June 30, 1904.	Total.
Information required by the several departments, duly furnished	52	5	57
Information solicited by private parties and supplied	22	11	33
Directions and instructions to the inspector of public lands	12	.....	12
Requirements of documents on file by the various departments	14	3	17
Copies provided to private parties of documents on file and certification of the same, for which \$16.70 have been collected in revenue stamps	4	.....	4

JOSÉ SUAREZ,
Chief Bureau of Public Lands.

SAN JUAN, P. R.; June 30, 1904.

APPENDIX 3.

Statements of deeds registered and filed in the bureau of public lands acquired by the people of Porto Rico since July 1, 1903, to June 30, 1904, for the purpose of schools, jail, vaccine institute, courts, etc.:

According to the statement delivered June 1, 1904, 15 deeds, representing 112,873.92 square meters were registered and filed. Filed and registered to date, 1 lot and house in Arecibo, for the use of the district court, 1 deed, representing 455.82 square meters. Grand total, 113,329.74 square meters.

JOSÉ SUAREZ,
Chief Bureau of Public Lands.

SAN JUAN, P. R., June 30, 1904.

EXHIBIT B.

REPORT OF THE ACTING SUPERINTENDENT OF PUBLIC WORKS.

DEPARTMENT OF THE INTERIOR OF PORTO RICO,
BUREAU OF PUBLIC WORKS,
San Juan, P. R., June 30, 1904.

SIR: In accordance with directions contained in your letter of May 16, 1904, I have the honor to submit the following report of the work done under the bureau of public works during the fiscal year from July 1, 1903, to July 1, 1904.

The construction of roads and bridges and their maintenance after completion is the principal work under this bureau, and during this fiscal year, out of a budget of \$326,920, the sum of \$244,420 has been appropriated for such work. The balance of \$82,500 was appropriated as follows:

Maintenance and repairs of public buildings	\$35,000
Expenses at the Executive mansion	12,500
Construction of jails at Ponce and Arecibo and purchase and repair of building for the district court at Arecibo.....	35,000

From "trust-fund" allotments, amounting to \$244,500, there was authorized and made available this year for road repair and construction of roads as follows:

Mayaguez-Cabo Rojo road (less \$9,996.52 expended previous to July 1, 1903)	\$12,000.00
San German-Lajas road	5,000.00
Caguas to San Lorenzo.....	15,000.00
Aibonito-Barranquitas road (allotted March 21, 1904).....	15,000.00
Mayaguez to Consumo	15,000.00
Las Marias road (construction)	30,000.00
Arroyo-Patillas road.....	10,000.00
Lares to San Sebastian	15,000.00
Aguadilla to Camuy	20,000.00
Fajardo to Naguabo	12,000.00
Ponce to Guayama	20,000.00
Consumo to Maricao.....	13,000.00
Manati River bridge (from previous allotments, \$8,000), total	18,000.00
Mameyes to Fajardo (allotted February 1, 1904)	10,000.00
Sabana Grande to San German	10,000.00
Manati to Ciales (Morovis branch)	8,000.00
Rio Piedras to Trujillo Alto	8,000.00
San German to Pezuela bridge	6,500.00
Yauco to Sabana Grande.....	6,000.00
Yabucoa to Maunabo	4,000.00

And the expenditures to date are as follows:

Mayaguez to Cabo Rojo.....	\$12,500.00
San German to Lajas	4,252.69
Caguas to San Lorenzo.....	15,000.00
Aibonito to Barranquitas.....	14,924.01
Mayaguez to Consumo	13,026.84
Las Marias road	2,864.76
Arroyo to Patillas	1,201.85
Lares to San Sebastian.....	26,028.42

Aguadilla to Camuy	\$36, 198. 55
Fajardo to Naguabo	22, 640. 88
Ponce to Guayama	31, 541. 71
Consumo to Maricao	1, 452. 30
Manati River bridge	(a)
Mameyes to Fajardo	32, 500. 56
Sabana Grande to San German	1, 418. 31
Manati to Ciales (Morovis branch)	(a)
Rio Piedras to Trujillo Alto	2, 026. 27
San German to Pezuela bridge	10, 090. 61
Yauco to Sabana Grande	67, 253. 30
Yabucoa to Maunabo	2, 467. 93
Total	297, 388. 09

With these allotments and expenditures, 56.10 kilometers of new roads have been completed, 19.4 kilometers of old roads efficiently repaired, and 40 kilometers are in course of repair.

The "trust fund" has been more particularly assigned to the repairs of old roads, some of which will later be considered as insular roads and maintained as such from the regular budget, but are not yet entirely constructed in accordance with the specifications for the completed first-class insular roads; the object has been to improve such old roads and put them in fair condition for travel and the transportation of agricultural products and to some extent at the same time to afford relief to the unemployed. The detailed statements of the disbursements on account of budget and "trust fund" are given under Appendix A, with the report of the disbursing officer for the fiscal year 1903-4.

As stated in previous reports, over 250 kilometers of first-class roads were constructed under the Spanish Government by the "Jefatura de Obras Publicas," of which the bureau of public works may be considered the American successor.

In order to demonstrate how this road work has progressed since the year 1858, the time of the creation of a technical personnel of public works in Porto Rico, a diagram is attached to this report showing at a glance the road work accomplished in the preceding years up to 1898 by the Spanish Government and from the year 1898 to date by the American Government. The inclination of the line shows the rate of progress, which was by the Spaniards for the period of thirty-nine years an average of $6\frac{3}{4}$ kilometers per year, and for the Americans for a period of six years $46\frac{3}{4}$ kilometers per year, the highest rate for the Spaniards for any period of six years having been 13 kilometers, from 1881 to 1886.

The following table, prepared in connection with this diagram, describes the lines followed and lengths of road constructed:

Roads constructed under the Spanish and American Governments.

	Spanish Govern- ment.	American Govern- ment.	Total.
	<i>Kilometers.</i>	<i>Kilometers.</i>	<i>Kilometers.</i>
San Juan to Ponce Playa	135. 00	.....	135. 00
Ponce to Arecibo (through Adjuntas and Utuado)	20. 50	60. 50	81. 00
Cayey to Arroyo (through Guayama)	26. 00	7. 00	33. 00
Rio Piedras to Mameyes (through Carolina and Rio Grande)	31. 50	. 70	32. 20
Between Mameyes and Naguabo Playa (crossing Luquillo, Fajardo, and Ceiba) .....	.....	21. 50	21. 50
Catano to Reyes Catolicos bridge (through Bayamon)	19. 00	.....	19. 00
Reyes Catolicos bridge to Corozal (through Toa Alta)	4. 50	11. 50	16. 00
Reyes Catolicos bridge toward Vega Alta	4. 00	3. 70	7. 70
Aguadilla to San Sebastian	5. 00	18. 00	23. 00
San Sebastian toward Lares .....	.....	10. 40	10. 40
Mayaguez toward Anasco	9. 00	.....	9. 00
Mayaguez toward Las Marias .....	.....	16. 50	16. 50
Mayaguez to San German	13. 50	1. 00	14. 50
Between San German and Sabana Grande .....	.....	1. 50	1. 50
Between Sabana Grande and Yauco .....	.....	14. 60	14. 60
Caguas to Humacao Playa .....	.....	39. 00	39. 00
Manati to Ciales .....	.....	12. 80	12. 80
Between Morovis and junction road Manati to Ciales .....	.....	5. 00	5. 00
Between Bayamon and Comerio .....	.....	18. 30	18. 30
Between Yabucoa and Maunabo .....	.....	6. 50	6. 50
Between Camuy and Aguadilla .....	.....	32. 50	32. 50
Total	268. 00	281. 00	549. 00

^a No expenditure.

Besides, under the American Government extensive improvements almost amounting to reconstruction have been made in the following roads:

	Kilometers.
Between Ponce and Guayama.....	24.00
Between Caguas and San Lorenzo	8.00
Barranquitas toward Aibonito.....	8.40
Cidra to Las Cruces.....	8.00
Cabo Rojo to junction road Mayaguez to San German.....	5.75
Caguas to Aguas Buenas.....	9.00
Naguabo to Naguabo Playa.....	2.00
Lajas toward San German.....	2.00
Between Consumo and Maricao	1.00
Between Rio Piedras and Trujillo Alto	1.00
Total.....	68.75

The engineers of the Spanish Government had to develop the road work under an approved plan of the so-called State roads, which comprised the following routes:

Road No. 1.—From San Juan to Ponce Playa, passing through Rio Piedras, Caguas, Cayey, Aibonito, Coamo, Juana Diaz, and Ponce.

Road No. 2.—From Catano to Mayaguez, passing through Bayamon, Vega Alta, Vega Baja, Manati, Arecibo, Hatillo, Camuy, Quebradillas, Isabela, Aguadilla, Aguada, Rincon, Anasco, and Mayaguez.

Road No. 3.—From Mayaguez to Guayama, passing through Hormigueros, San German, Sabana Grande, Yauco, Guayanilla, Ponce, Santa Isabel, Salinas, and Guayama.

Road No. 4.—From Cayey to Guayama.

Road No. 5.—From Caguas to Humacao Playa, passing through Gurabo, Juncos, Piedras, Humacao, and Humacao Playa.

In charge of the insular corporation called "diputacion provincial" there were the following lines:

Road No. 6.—From Arecibo to Ponce, through Utuado, Adjuntas, and Ponce.

Road No. 7.—From Rio Piedras to Fajardo, passing through Carolina, Rio Grande, Mameyes, Quillo, and Fajardo.

Road No. 8.—From Aguadilla to Lares, passing through Moca, San Sebastian, and Lares.

Road No. 9.—From Bayamon to Comerio.

None of these roads was completed when the Americans took possession of the island, with the exception of road No. 1, in which, however, several important bridges were and are still needed. These roads and others shown in the map accompanying this report, numbered from 1 to 14, form the general plan of the present insular roads already built and in maintenance, or to be completed as the appropriations from the regular budget or from the "trust fund" will permit.

At present the condition of these roads is shown in the following list:

List of insular roads.

No.	Designation.	Total length.	Finished length.	Uncompleted length.
		Kilometers.	Kilometers.	Kilometers.
1	San Juan to Ponce Playa.....	135.00	135.00	
2	Catano to Mayaguez.....	164.00	68.20	95.80
3	Mayaguez to Guayama.....	130.00	30.60	99.40
4	Cayey to Arroyo.....	33.00	33.00	
5	Caguas to Humacao Playa.....	39.00	39.00	
6	Ponce to Arecibo.....	81.00	81.00	
7	Rio Piedras to Arroyo.....	137.00	60.00	77.00
8	Lares to Aguadilla.....	39.50	33.40	6.10
9	Bayamon to join road No. 1.....	49.00	18.30	30.70
10	Road No. 2, Barros.....	58.00	16.00	42.00
11	Manati to Juana Diaz.....	61.00	17.80	43.20
12	Coamo to Barros.....	17.00		17.00
13	Mayaguez to Arecibo.....	61.00	16.50	44.50
14	Aibonito to road No. 13.....	96.00		96.00

The personnel and duties of the bureau have remained the same as last year. We only have to regret the retirement of the able superintendent of public works, Mr. A. Stierle, who so masterfully and assiduously conducted the business under his care.

For the other employees I have only to repeat the commendation of the superintendent. They all direct their endeavors in the measure of their capabilities to secure an honest and successful administration of the share of the public trust confided to them.

List of employees of the bureau of public works.

Name, title, etc.	Fund.	Salary.	Duties.
A. Stierle, civil engineer, superintendent.	Regular budget.	\$3,000	General direction of all the operations of the bureau. Chairman of the board of award.
P. F. Fernandez, civil engineer, assistant superintendent.	.....do	2,400	To assist the superintendent in his labor and substitute him during temporary absence or vacancy. Especially in charge of franchises, concessions, examination of plans, and specifications in connection thereof. Examination and report on projects for municipal works on the public domain by private parties. Matters relating to road work under the district road law and prison labor, etc. Member of the board of award.
J. J. Jimenez, civil engineer, general inspector.	Trust fund.....	2,000	General inspection of road and bridge works when directed by the superintendent; preparation of new plans and specifications especially for roads carried out with money from the "trust fund."
F. Spinosa, clerk and typewriter.	Regular budget.	1,200	
F. Fano, clerk, translator, and typewriter.	.....do	1,200	
DIVISION OF MAINTENANCE.			
F. Montilla, district engineer, San Juan.	Regular budget.	1,800	In charge of maintenance of the roads in the district of San Juan and matters in connection therewith. Investigation and report on matters connected with the department of public works in his district.
Chas. G. Borch, clerk and typewriter.	Trust fund.....	1,000	
J. C. Besosa, district engineer, Ponce.	Regular budget.	1,800	In charge of maintenance of the roads in the district of Ponce and matters in connection therewith. Investigation and report on matters connected with the bureau of public works in his district.
Matos Bernier, clerk and typewriter.	.....do	720	
R. Skerrett, district engineer, Mayaguez.	.....do	1,800	In charge of maintenance of the roads in the district of Mayaguez and matters in connection therewith. Investigation and report on matters connected with the bureau of public works in his district.
J. Blanco, clerk and typewriter.	.....do	720	
G. Boyce, supervisor of public buildings.	.....do	1,500	In charge of repairs of all insular buildings for the departments and for district courts in San Juan and other towns. Repairs of the executive mansion.
F. Delgado, clerk and typewriter.	.....do	900	
A. Morales, surveyor of public lands and architect of buildings.	.....do	1,500	Survey of public buildings and adjacent grounds within the city of San Juan and other towns; platting and staking out and establishment of bench marks for the metes and bounds of said property; description and filing of records, etc.
DIVISION OF VOUCHERS AND ACCOUNTS.			
Ed. H. Jones, chief clerk.....	Regular budget.	1,800	Minute examination of vouchers, pay rolls, and accounts pertaining to all the offices and field operations. Keeping account of all appropriations, etc.
S. Truxton, special clerk.....	Trust fund.....	1,800	Examination of engineer estimates and documents, especially in connection with the "trust fund" allotments.
J. M. Canals, voucher clerk and typewriter.	Regular budget.	1,080	Clerical work.
J. W. Blanco.....	Trust fund.....	1,080	Do.
N. Carbia, voucher clerk and typewriter.	Regular budget.	900	Do.

List of employees of the bureau of public works—Continued.

Name, title, etc.	Fund.	Salary.	Duties.
DIVISION OF DISBURSEMENTS.			
W. C. Smith, disbursing officer.	Regular budget.	\$2,000	Requisitions of funds, payments of all vouchers pertaining to public works, issuance of money checks, keeping account of all disbursements. Payment of pay rolls in cash twice a month to laborers, etc.
W. O. Johnson, clerk and bookkeeper.	.....do	1,200	
F. Peniman, pay-roll clerk.....	Trust fund.....	1,200	
A. Contreras, check clerk.....	Regular budget.	1,000	
DIVISION OF DRAFTING.			
J. F. Callejo, draftsman	Regular budget.	1,200	Superintendent of drafting division. In charge of cement testing in the laboratory, etc.
E. Guillen, draftsman .....	.....do	720	
A. Brioso, draftsman .....	.....do	720	
R. Margenat, draftsman	Trust fund.....	720	
F. Tallada, copyist.....	Regular budget.	300	
A. Moscioni, photographer	Trust fund.....	900	
DIVISION OF PROPERTY.			
H. Simonet, property clerk	Regular budget.	900	Care of property, inventories, and property returns.
Pio Amador, storekeeper .....	.....do	720	
<i>Watchmen.</i>			
Rivera.....	.....	360	
Cintron.....	.....	360	
<i>Messengers.</i>			
H. Rodriguez .....	.....	300	
A. Smith.....	.....	300	
<i>Janitors.</i>			
R. Margary .....	.....	300	
Cifredo .....	.....	300	

BOARD OF AWARD.

A. Stierle, superintendent of public works. Retired February, 1904.

J. B. Rodriguez, assistant commissioner of the interior.

P. F. Fernandez, assistant superintendent of public works. Acting chairman since December, 1903.

Now, to relate the annual work done, which is the special object of this report, I shall consider the matter under the following headings:

I.—Construction of roads and bridges.

II.—Repairs of old roads.

III.—Construction of roads with convict labor.

IV.—Surveys for new roads and bridge sites, etc.

V.—Maintenance of insular roads.

VI.—Public buildings and lands.

VII.—Franchises and permits for occupation of the public domain; examination of plans in connection therewith. Examination of plans for municipal and other works.

VIII.—Miscellaneous.

I.—CONSTRUCTION OF ROADS AND BRIDGES.

1. *Rio Chico section of the Arecibo-Ponce road.*—The construction of this portion of road was carried out under a contract with Marix & Co. dated February 28, 1903, and completed in April, 1904. The term of obligatory maintenance being six months, ran into the present fiscal year, and the final settlement was made on December 16, 1903. The total amount paid the contractor was \$92,879.13. The original allotment was \$79,000 from the "trust fund." The difference, \$13,879.13, was taken from the allotment of \$85,000 made April 27, 1903, from the "trust fund" for the Arecibo-Ponce road, Tallones section. There was paid for supervision, field and office force, and land damages \$9,726.44, which makes the total cost of the completion of the 5.22 kilometers of road \$79,000, or at the rate of \$15,134 per kilometer.

This portion of road is now under care of the Ponce division of maintenance.

2. *Yabucoa-Maunabo road.*—This section, of 9.36 kilometers, was to be completed January, 1903, under contract with Demetrio Garofalo, dated April, 1902, against an allotment of \$38,000 from the "trust fund." For good reasons, several extensions of time for the completion of the contract were given the contractor, and the contract was finally closed in June, 1903; for, although the road was not completed, the contractor had done more work than the original amounts called for in the contract.

The final settlement was made October 3, 1903, and the contractor was paid \$31,-283.41. The road was to be continued by day labor under the direction of the local engineer. The conditions of the ground over which this road is located are such that the amount of work previously estimated was greatly exceeded by the necessity of filling deep hollows unexpectedly exposed after the sliding of big boulders peculiar to the Pandura Mountain, and removing these slides, which have been a source of trouble and expense in the construction of this road.

The balance of the allotment proved insufficient to complete the road, and another allotment of \$4,000 from the "trust fund" was made January 27, 1904, which will be all expended this year. The completed portion of this road is under maintenance in charge of the San Juan division.

3. *San Sebastian-Lares road.*—The contract for the construction of the 14.67 kilometers of road between San Sebastian and Lares was awarded to Marix & Co. on May 6, 1902. The work was to be completed in twelve months, expiring June 1, 1903. However, on account of incidents related at length in last year's report of this bureau, this contract was closed before completion and the contractors paid on December 22, 1903, for final settlement, \$23,605.57, the total amount earned and paid them being \$63,416.62 for about 10 kilometers of finished road.

On January 29, 1904, another allotment, amounting to \$16,000, from the "trust fund" was made to complete this road, and work has been in progress by day labor since April last, in charge of an experienced sobrestante and under the direction and inspection of this bureau. The progress of the work is very satisfactory, about 2 kilometers having already been completed.

4. *Bayamon-Comerio road.*—A section of road 14.5 kilometers long on the Bayamon-Comerio road, beginning at Bayamon, was let by contract to Messrs. Mullenhoff & Korber, approved January 17, 1903. The work was to be completed in one year and paid from an allotment of \$120,000 from the "trust fund." Owing to prolonged fine weather and intelligent management by the contractors, the whole work was completed and provisionally accepted in January, 1904, and after the term of four months of maintenance the final acceptance took place on April 5, 1904, and it is now under regular maintenance of the San Juan division. The final liquidation and settlement of all moneys earned by the contractors and expenditures for inspection, supervision, etc., show a total amount of \$119,997.43 for the 14.5 kilometers, or at the rate of \$8,275.68 per kilometer.

5. *Tallones-Adjuntas section of the Arecibo-Ponce road.*—This section, 4 to 6 kilometers, when completed, will close the gap in the finished road from Arecibo to Ponce. An allotment of \$85,000 was authorized from the "trust fund" April 29, 1903, for the completion of this piece of road and for 32 culverts to be constructed along a stretch of about 9 kilometers of that section from Utuado.

After due advertising, bids were opened July 16, 1903, with the following results:

Jose Roig Colomer, Utuado	\$60,626
Raoul Marix, San Juan	47,577
Domingo Rinatti, Ponce	69,370
Luis F. Rubio, San Juan	65,629
Roque Paniagua, San Juan	71,307
W. D. Noble, San Juan	71,518

The contract was awarded to Raoul Marix, the lowest bidder, the work to be completed in five months. On account of unusually heavy rains, the work could not be completed at the end of the five months, expiring December 28, 1903, and the contractor has been granted three extensions of time. The provisional acceptance finally took effect June 25, 1904. The road is now under obligatory maintenance by the contractor during four months, as specified in the contract, and opened to traffic.

Some extra work has been done under proper authority, and the total amount earned by the contractor to June 30, 1904, was \$48,856.61.

6. *Las Marias road.*—Under an allotment of \$30,000, authorized March 21, 1903, from the "trust fund," the survey of about 4 kilometers on the Las Marias road was begun.

Three different locations had been surveyed, and the one considered most advantageous selected for the final construction. The project was completed, and after its

approval by the commissioner of the interior bids were called for by advertisement and opened June 20, 1904, with the following results:

Adriano Gonzalez, Mayaguez	\$15,569.50
L. Ninliatt, Mayaguez.....	14,892.00
Jose C. Gonzalez, Mayaguez	14,510.50
Victor Honore, Mayaguez.....	13,224.00
Roque Paniagua, San Juan.....	14,673.00

The contract was awarded to Victor Honore, of Mayaguez, the work to be completed in five months.

7. *Reconstruction of culverts on the Caguas-Humacao road.*—The work of reconstructing some culverts on this road was related in the preceding annual report. The work was let by contract with the lowest bidder, D. M. Palmieri, of Adjuntas. Operations began in June, 1902, and work was completed September 5, for the amount of \$6,373.55, as bid.

BRIDGES.

Manati River bridge.—Construction on this bridge began early in 1900 by the military engineers. It is located on the Manati-Ciales road, crossing the Manati River about 9 kilometers from Manati, at a site called "Mata de Platanos." The natural rock on the Manati side will form one of the abutments; the other abutment, on the Ciales side, has been constructed of concrete. The span is 80 meters, and the steel and iron superstructure purchased during Spanish times for the Loiza River bridge, near Carolina, as already related in previous report, is to be finally erected over these abutments. For reasons also previously related, the construction of a central masonry pier to divide the span in two was approved, and said construction began by contract, after proper advertisement, with the lowest bidder, F. H. Janes, who failed to accomplish his contract, and, moreover, sued the administration for alleged damages due him, with the result that this work, which was to be completed in April, 1903, was only finished in November, 1903, by the bondsmen of the failing contractor, and the final payment of the 10 per cent retained is still pending.

With a balance of a trust-fund allotment made in 1901 amounting to about \$8,000, and the new allotment of \$10,000 from the "trust fund" made February, 1904, it has been made possible to proceed to carry out the contemplated erection of the bridge. Plans and documents were prepared for the purpose, and after approval by the commissioner of the interior, and due advertising, the following bids were received and opened May 20, 1904:

Dooley, Smith & Co	\$24,498
Roque Paniagua, San Juan.....	15,749
Axtmayer & Son, San Juan.....	28,750
L. Ninliatt, Mayaguez	12,770
Luis F. Rubio, San Juan.....	18,171
A. Nin Martinez, San Juan	15,949

Mr. L. Ninliatt, being the lowest bidder and known to the bureau as an able contractor, the awarding of the contract to him was recommended to the commissioner of the interior. The contract was entered into June 1, 1904, duly approved by the commissioner of the interior June 2, 1904, and work began at once.

2. *Mavilla River bridge.*—The work of finishing the spandrel walls and the parapets of this bridge, after due advertising, was let by contract to the lowest bidder, Roque Paniagua, for the sum of \$2,838, on August 15, 1903. The work was to be completed November 15, 1903, but on account of unusually heavy rains the contractor requested and was granted an extension of one month. The work was completed and the contract closed within the extension. The contractor earned \$3,028.02, due to an excess in the quantities of masonry over the estimates.

3. *Submergible bridge across the Portugues River.*—This type of temporary bridge has been designed as an experiment to carry the roadway across the river with a relatively inexpensive construction.

The structure is a low pile bridge, submergible by the higher floods; hence its designation. It is expected that if properly constructed this type of bridge will receive little damage from the floods and will be easily repaired, thus allowing the postponement for better times of the final construction of the high and costly bridge which will allow the crossing of the river in all conditions of the floods.

The construction of the Portugues submergible bridge was begun last year under contract awarded to Carlos Clausells for the sum of \$2,260. The allotment from the "trust fund" was \$4,250 and allowed the construction of the approaches on both sides. The bridge was opened to the public traffic in September, 1903, and so far has proved efficient.

4. *Submergible bridge across the Anasco River.*—The allotment of \$8,500 from the "trust fund" for the construction of this bridge was made December, 1902. During the second half of the last fiscal year the survey and plans for the structure were made, and after due approval by the commissioner of the interior the work was advertised, with the result that a contract was entered into with Louis Ninliatt, of Mayaguez, August 4, 1903, to build the bridge in accordance with the specifications for the sum of \$4,620. The work had to be completed November 4, 1903, but the contractor was granted an extension of time for reasons that were considered sufficient, and the work was only finished March 11, 1904.

A high flood of the Anasco River occurred March 11, causing the washout of two timber bridges of private property above the site of our bridge, and the timber of said bridges and other considerable amount of drift carried by the floods against the structure caused loosening of some piles by extensive scouring of the bed of the river. The damage inflicted showed at once the necessity for driving longer piles and otherwise strengthening the bridge to enable it to resist any similar occurrences. Such repairs required additional work, which was carried out by the contractor under a supplementary agreement in accordance with the provisions of the original contract. The bridge is now completed and was opened to public traffic May 16, 1904.

5. *Repairs to Guayo River bridge.*—This is one of the two concrete and steel bridges built by contract with Mr. Edwin Thacher. The construction started under the military government of the island in 1900 and was completed under the civil government in February, 1901. The bridge is on the highway between Ponce and San Juan, across the Guayo River, at about 26 kilometers from Juana Diaz. Some time after the bridge was opened to public traffic cracks made their appearance, especially on the arch on the Ponce side of the bridge.

The largest cracks were visible between the crown of the arch and the spandrel wall; they seemed to increase with time and so alarmed the district engineer at Ponce that he recommended the taking down of the arches and their substitution by iron spans. However, after proper investigation it was ascertained that there had been absolutely no movement of the abutments, and consequently no immediate danger was apprehended of the collapsing of the structure. It was believed at headquarters that the difference in concrete used for the arches and the spandrel walls, and the fact that these walls were built before the arches had been loaded with the earth filling and macadam, were sufficient cause of unequal settlements and contractions in the arches and spandrel walls, producing the objectionable cracks, but that the strength of the arches was not thereby impaired. As it was, however, publicly rumored that the bridge was not safe, it was decided to make a new test of the west span (Ponce side) with dead load, and if possible with live load, to remove all doubt about the safety of the structure. The test was carried out in November, 1903, with very satisfactory results. The arch was loaded on the center with 52,825 pounds, or at the rate of 160 pounds to the square foot, and the total deflection was 0.015 foot, which promptly disappeared after removal of the load.

The live-load test consisted in making twenty men run across the span three abreast on the north side near the reading gauge. This load caused only an oscillation of 0.001 foot.

The repairs proposed consist in the proper drainage of the filling and in the obliteration of all cracks by proper plastering and grouting.

II.—REPAIRS OF OLD ROADS.

1. *Mayaguez-Consumo road.*—This is the first section, 15 kilometers long, of the Mayaguez-Las Marias road, comprised between Mayaguez and a place called "Consumo," which is the starting point of 8 kilometers of new road built toward Las Marias by the military government in 1901.

In March, 1903, the governor authorized an allotment of \$15,000 from the "trust fund" for the repairs of this section of road, and work began with the construction of 15 concrete drainpipes needed and repair of old ones. This work was carried out by contract with Victor Honore. Bids were opened September 28, 1903, for the construction of 15 concrete drainpipes and repair of 6 culverts and 6 old drainpipes along the Mayaguez-Consumo road, as follows:

Raoul Marix, San Juan (three months)	\$4,085.00
Benjamin Morales, Corozal (two months)	2,850.00
A. Salas, Mayaguez (three months)	3,963.00
Roque Paniagua, San Juan (three months)	3,352.00
Duffaut & Gonzalez, Mayaguez (two months)	2,776.15
Victor Honore, Mayaguez (three months)	2,432.50

Under his contract Honore completed the work in December, 1903, earning only \$1,919, on account of actual quantities resulting less than estimated; the balance of the total allotment was expended in repair of the roadbed by day labor, and is now nearly exhausted. This section will be under regular maintenance next fiscal year.

2. *Yauco-Sabana Grande road*.—This section has a total length of 17 kilometers, of which 12 were completed last year. An allotment from the "trust fund" of \$6,000 was authorized February 1, 1904, to repair the remainder, and work began February, 1904, under an experienced sobrestante, and the allotment was exhausted in May without completing the repairs. About 1 kilometer remains unfinished. From July 1 it will be maintained by the regular force under appropriations in the regular budget.

3. *Mameyes-Fajardo road*.—The length of this section is 18 kilometers, of which 8 kilometers have been thoroughly repaired from previous allotments of the "trust fund." For the remainder an allotment of \$10,000 was authorized February 1 of this year; work began February 20, and 4 kilometers have been thoroughly reconstructed, with an expenditure of \$9,600.

4. *Fajardo-Naguabo Playa road*.—The total length of this section is 20 kilometers, of which 11 have been repaired from previous allotments of the "trust fund." For the 9 kilometers untouched an allotment of \$12,000 from the trust fund was authorized February 1, 1904. Work began February 5, 1904, and 4.5 kilometers were reconstructed by the end of June.

5. *Camuy-Aguadilla road*.—The total length of this section is 42 kilometers, of which 27 kilometers were repaired from various allotments during the year 1901 and 1902. Work of improvement under the present allotment of \$20,000 from the "trust fund" began in March last and is progressing rapidly, 8 kilometers having been already thoroughly reconstructed with an expenditure of \$14,000.

6. *Ponce-Guayama road*.—The total length of this road is 56 kilometers as follows:

	Kilometers.
Ponce to Santa Isabel.....	23
Santa Isabel to Salinas.....	12
Salinas to Aguirre.....	11
Aguirre to Guayama.....	10

The repairs on this road began in December, 1902, against an allotment of \$30,000 from the "trust fund," and about 20 kilometers were repaired as follows:

	Kilometers.
Between Ponce and Santa Isabel.....	8½
Between Santa Isabel and Salinas.....	3
Between Salinas and Aguirre.....	2
Between Aguirre and Guayama.....	2

Under the new allotment of \$20,000 from the "trust fund," authorized February 1, 1904, the work was resumed at two different points between Salinas and Aguirre, and it is in good progress. The sum of \$5,000 has already been expended.

7. *Mayaguez-Cabo Rojo road*.—The greater part of the work on this section, 6 kilometers long, was done last fiscal year and was completed during the first month of the present fiscal year, when it was turned over to the road supervisors of the Mayaguez district for maintenance as a vicinal road.

8. *San German-Lajas road*.—The sum of \$5,000 was allotted from the "trust fund" to repair this vicinal road, especially to improve the steep rocky grade near San German. Work began July 16, 1903, and after the allotment was exhausted the road was recommitted to the care of the road supervisors of the Mayaguez district.

9. *Vega Alta road*.—Work began on the repair of this road, 8 kilometers long, of which 4 kilometers were completed before 1898, as part of the insular road No. 2, in July, 1903, from an allotment of \$5,000 authorized June 2, 1903. The main work was the regulating of the rocky grade called "Cuesta de Guerra" by some and "Espinosa" by others. The allotment was exhausted October, 1903, leaving the road in good condition. It is now in charge of the San Juan district of maintenance.

10. *Caguas-San Lorenzo road*.—On this section of road, 9 kilometers in length, up to the year 1898 about \$12,000 were expended by the Spaniards in the uncompleted construction of about 3 kilometers, including several masonry culverts. Under the American military government \$8,418 more were expended, and although the road was greatly improved much remained to be done in order to avoid three fords of the five existing across the Loiza River. The other two could also be avoided by locating the road on the south bank of the river, but that improvement would cost over \$15,000 for little more than 1 kilometer of road, and for reasons of economy it was considered best for the present to keep the two crossings nearer Caguas and use the available funds in repairing the rest of the road. March 21, 1903, an allotment

of \$15,000 was made from the "trust fund;" work was organized August 11, 1903, and the allotment exhausted January 31, 1904, leaving the road in fair condition. It is now in charge of the road supervisors of the district of Guayama.

11. *Manati-Ciales road (Motovis branch).*—This branch is 12 kilometers long, on which about \$56,000 have been expended since the military government to date, with the result that nearly all the grading has been done and about 8 kilometers of completed road are under regular maintenance. A new allotment of \$8,000 was made February 1, 1904, and work of improvement has been resumed.

12. *Arroyo-Patillas road.*—An allotment of \$10,000 from the "trust fund" was made May 21, 1903, for repair of the road, which is 7 kilometers long. Last year a survey was made of a cut-off beginning at kilometer 4, from Arroyo, to shorten the distance between Arroyo and Maunabo about 3 kilometers. This has been finally located and is in course of construction by the interested parties.

The allotment will be expended on the repairs needed between Arroyo and Patillas. The work of improvement was begun June 22 under a competent *sobrestante*.

13. *Aibonito-Barranquitas road.*—This is a vicinal road, which was completely surveyed in 1901. The length of the road from Barranquitas to a point on the central main road No. 1 near Aibonito is 11 kilometers, the construction of which was estimated to cost \$33,500.

The improvement of this trail was begun under the military government by Captain Wheeler, U. S. Army, and \$7,721 had already been expended in its general improvement when the new allotment of \$15,000 from the "trust fund" was made March 21, 1903.

The work under that allotment began October 15, 1903, and the allotment was exhausted April 11, 1904, leaving a good macadamized road over 9 kilometers, with culverts and pipes. About \$10,000 are still needed to complete the portion of over 3 kilometers already surveyed, but untouched, to the junction with the main road near Aibonito.

14. *Consumo-Maricao road.*—This is a vicinal road 10 kilometers long, and branches from the 15-kilometer of the Mayaguez-Las Marias road. It is in very bad condition, and an allotment of \$13,000 from the "trust fund" was authorized in February, 1904, for its repair. Work was organized April 25, 1904, and already 4 kilometers of roadbed and ditches have been repaired, put in good shape, and ready for macadam. The stone in hand is not of the best, but nevertheless makes a good metaling for the light traffic on the road.

15. *Sabana Grande-San German road.*—Work was organized to repair this road, 8.2 kilometers long under an allotment of \$10,000 from the "trust fund," authorized last February. Work began April 15, and is progressing well; 4 kilometers will be repaired by July 1, 1904, with an expenditure of about \$5,000.

16. *San German-Pezuela bridge.*—This section, 6 kilometers long, is a part of insular road No. 3, not yet constructed under the specifications for main roads; its location is low, and during rainy weather it gets in very bad condition. The allotment of \$6,500 from the "trust fund," made last February, for the improvement of this road will repair it fairly. Work was started last April with the regular force of maintenance and some auxiliary help under the direction of the district engineer at Mayaguez.

17. *Rio Piedras-Trujillo Alto.*—The length of this road is 7 kilometers. Along its location the best stone quarries on the island for building and road construction are to be found. The road branches off at kilometer 3 of insular road No. 7, between Rio Piedras and Carolina, and the stone supplied by these fine quarries will be then easily available for the public works. An allotment of \$8,000 from the "trust fund" has been authorized for the improvement of this road. Work began on March 10, 1904, and is progressing well; about 2 kilometers have been completed and 2½ kilometers more are graded. The stone for the metaling is furnished by agreement after competition with the owners of quarries, and is delivered broken and ready to be used on the road.

III.—ROAD WORK BY CONVICT LABOR.

After due advertising for bids for the construction of the buildings to be erected at the convict camp on the road from Humacao to Yabucoa, to be opened July 2, 1903, only one bid was submitted, that by Juan R. Lois, of Humacao, for the amount of \$2,200. This bid, besides being informal, exceeded the estimate of the bureau and was rejected by the board of award. The bureau was then authorized to proceed by day labor, and work was started in August, 1903, under a native *sobrestante* of experience.

The buildings were completed and the camp fenced at a cost of \$1,800. Everything being ready to receive the prisoners, October 13, 1903, the proper requisition

was made by the commissioner of the interior to the director of prisons, through the attorney-general, as called for by the regulations, for the transportation of 120 prisoners to the camp at Humacao, to begin work on the road as soon as possible.

The prisoners arrived at the camp November 6 and were immediately employed in quarrying stone for the road. A force of 50 policemen was detailed to guard the prisoners in the camps and during work in the road. The work of quarrying stone progressed at a slow rate from the start until March 31, 1904, when the prisoners were conveyed back to the penitentiary by order of the governor. On account of the legislature failing to appropriate funds for the maintenance of the police guarding the convicts it was imperative to discharge the force at that date.

The buildings for the camp on the Jayuya road were built on the site selected near the "Alto de la Bandera" on road No. 6, section Adjuntas to Ponce. Work began September 20, 1903, and the camp was fenced and ready to receive the prisoners by the end of November, at a cost of \$1,900.

The requisition, under the regulations, was recommended to the commissioner of the interior by the superintendent of public works in order to send 120 prisoners to Adjuntas to begin work on that road. The requisition was made, but did not materialize on account of the publicly expressed opinion that free labor was being prejudiced by the work of the convicts on the roads, and, perhaps for other economical reasons, the governor was not in favor of the continuance of the convict work for road building, and in his last message to the legislature recommended the repeal of the law under which the convict road work was being carried out. The legislature, however, did not repeal the law, but failed to appropriate funds for the police guard, and work was forcibly suspended for that reason, as before stated.

The work performed by convict labor at Humacao is as follows:

Stone quarried from November 6 to March 31, 1904, 2,129.45 cubic meters; broken stone, 35 cubic meters. Repair and grading of 650 meters of road.

No convict work was done at Jayuya.

Each camp is now in charge of a care taker and further legislative action is awaited.

IV.—SURVEYS FOR NEW ROADS AND BRIDGE SITES.

The only survey made during the year for new roads was for the location of 4 kilometers of the Las Marias end of the Mayaguez-Las Marias road, the project for the construction of which was completed, duly approved, and, after advertising, the work was let by contract with Victor Honore, as related under heading I of this report.

Another survey was made for the project of reconstruction of a street along the water front of the harbor of San Juan, which work was completed by contract June 10.

V.—MAINTENANCE.

The organization for the maintenance of the completed insular roads is the same as in the preceding fiscal year. The island is divided into three districts of maintenance, with headquarters at San Juan, Ponce, and Mayaguez, each in charge of a district engineer.

The number of kilometers of road under maintenance last year was 445.1. This year it amounts to 518.2, an increase of 73.1 kilometers.

The district of San Juan has 275.3; Ponce, 161, and Mayaguez, 81.90 kilometers.

The district engineer of San Juan has under his orders 10 sobrestantes, 20 capataces, and 91 camineros, and has employed during the year 216 auxiliary laborers, supposing 300 working days in the year and 45 cents wages.

With 275.3 kilometers under maintenance, the average is: For each sobrestante, 27.5; each capataz, 13.8; each caminero, 3, and each auxiliary, 1.274 kilometers.

The district of Ponce has for the 161 kilometers under maintenance 7 sobrestantes, 10 capataces, 57 camineros, and has employed during the year 116 auxiliary laborers, an average of, for each sobrestante, 23; each capataz, 16.10; each caminero, 2.824, and auxiliary laborers, 1.387 kilometers.

The Mayaguez district has employed 3 sobrestantes, 6 capataces, 22 camineros, and 36 auxiliary laborers, an average of, for each sobrestante, 27.3; each capataz, 13.6; each caminero, 3.7, and auxiliary laborers, 2.3 kilometers.

The average cost per kilometer has been: In the district of San Juan, \$391.26; district of Ponce, \$369.61; district of Mayaguez, \$368.12.

The difference is explained not only by the average price obtained in each district for the stone, but especially by the amount of stone used, which items have been:

	Average price.	Quantity used.
		<i>Cubic meters.</i>
San Juan district.....	\$1.714	18,430
Ponce district.....	1.558	10,090
Mayaguez district.....	1.807	3,800

In the annual report for the preceding fiscal year the superintendent of public works wrote at length on the complex question of maintenance, quoting from various sources the cost per kilometer per year for maintaining the macadamized roads in a number of foreign countries, and showed that the cost per kilometer in Porto Rico was much the highest. "In explanation," the superintendent stated, "for the high cost in Porto Rico, it should be said that a great portion of our work done under the title of maintenance is really new construction, required in completing unfinished and neglected sections of road and in rebuilding broken bridges and culverts and other auxiliary works which were destroyed by the cyclone of 1899."

From the records in this bureau we can ascertain that the average for maintenance of all roads under the Spanish Government for the year 1887-88 was \$416.16 per kilometer, and as high as \$982.79 per kilometer per year for the section between San Juan and Rio Piedras; the general average is higher than the average obtaining this year, viz, \$376.33 per kilometer for all roads under maintenance.

For various reasons the purchasing value of the dollar at present for road labor and material is about the same as that of the "peso" in former times, and the figures have been compared without any reduction.

Our present system of maintenance is good in principle, and now that the appropriations for maintenance in the next fiscal year do not specify a permanent force, we propose to make it work more advantageously than heretofore by reducing the number of camineros, keeping permanently only capable and experienced men as foremen in care of a larger section of road, their duties being, besides the vigilance of the roads, to direct intelligently all the labor of maintenance required, using therefor the necessary force of auxiliary laborers only when and where needed, under the supervision of experienced sobrestantes, who will also have a larger section of road to attend to. In this manner it is expected greater economy will be obtained in the cost of maintenance of the insular roads without impairing its efficiency, and a further reduction could be obtained by reducing to two the districts of maintenance.

In closing this concise exposition of the maintenance of our roads during this fiscal year, I desire to state that the introduction of the steam road rollers has been instrumental in producing fine and comfortable roadways greatly beneficial to traffic. from the fact that the consolidation of the metaling is completed in the shortest possible time, apart from the economy thereby afforded to transportation, the traffic is spared the burden of passing over stretches of movable broken stone, so injurious to the feet of animals and a source of much discomfort to travelers.

Unfortunately, on account of lack of bridges, the benefit of steam rolling can not yet be extended to all the roads, and the slow and expensive ox roller has still to be used in those sections where the steam roller can not be safely transported.

Appendixes B, C, and D give in detail the service of maintenance in the districts of San Juan, Ponce, and Mayaguez.

The total expended for the 501.2 kilometers maintained has been \$197,374.38, as follows:

Permanent force	\$81,438.75
Auxiliary laborers	49,710.23
Broken stone, screening and rolling, etc	66,221.40
Total	197,370.38

VI.—PUBLIC BUILDINGS AND LANDS.

A.—MAINTENANCE AND REPAIR OF PUBLIC BUILDINGS.

The work done under this division is detailed in the appended report, "E," of the supervisor of buildings. It has consisted principally in repair work of the several insular buildings occupied by the several departments of the government of the island, the largest expenditure being in the completion of the plumbing and permanent repairs of the insane asylum.

The painting of the building called "diputacion," where the executive council, the house of delegates, the attorney-general, and other branches of the public serv-

ice have their quarters, has been let by contract, on account of the relative importance of its estimate, viz, \$1,077.55. After due advertising, bids were opened June 18, 1904, with the following results:

Alfonso Cruz, San Juan	\$1, 023
Axtmayer & Son, San Juan	669
A. Nin y Martinez, San Juan	1, 095
Guadalupe Flores, San Juan	899
Jack Katz, San Juan	1, 360

The contract was awarded to the lowest bidder, Messrs. Axtmayer & Son, and contract entered into in June.

The light and water consumption in the public buildings has been about the same as last year.

B.—SURVEYS AND RECORDS OF HARBOR LANDS AND PUBLIC BUILDINGS.

The principal work done in this division was the survey for the determination of boundaries and area of landed property belonging to the people of Porto Rico in the municipality of Utuado.

An allotment of \$500 from the governor's miscellaneous fund, transferred to "contingent expenses" of the bureau of public works, provided for this work. For lack of funds other similar surveys could not be done.

The detailed account of the work on this division, as given by the surveyor of public lands and buildings, is attached to this report under Appendix F.

ROAD WORK IN CHARGE OF THE ROAD-DISTRICT SUPERVISORS.

Under provisions of the law enacted by the legislative assembly on March 1, 1902, the first road supervisors were elected November 4, 1902, for the seven road districts of San Juan, Arecibo, Aguadilla, Mayaguez, Ponce, Guayama, and Humacao, into which the island was divided.

The board of road supervisors, composed of three members for each district, organized as a body corporate under the name of each district, is placed in charge of the work of repairs and improvement of the vicinal and rural roads of their respective districts, comprised in a general plan of such roads, to be approved by the executive council.

This general plan is yet in course of preparation in this bureau on account of the languid efforts of the boards in sending the required data. Nevertheless some work has been done under these organizations of road supervisors, and in order to make their labors known to you in this writing I requested the chairmen of the boards of road supervisors to write a summary of the operations in their respective districts since their organization to date.

As it would be too long and tedious to append herewith these reports, written in Spanish and some of them with native verbosity, I only insert an abstract from those on hand at the time of this writing, as follows:

Abstract of work performed in the road districts under the boards of road supervisors from November, 1902, to June, 1904.

NO. 1.—DISTRICT OF SAN JUAN.

Expenditures for the fiscal year are as follows:

Municipality of Bayamon: Repairs of 3 roads and 2 bridges	\$687. 44
Municipality of Toa Alta: Repairs on 2 roads	426. 49
Municipality of Comerio: Repairs on 1 road	160. 00
Municipality of Manati: Repairs on 1 road	966. 10
Municipality of Vega Baja: Repairs on 1 road	683. 23
Total	2, 243. 26

NO. 2.—DISTRICT OF ARECIBO.

Municipality of Utuado: There have been repaired in this municipality 31 kilometers of vicinal and rural roads and 2 wooden bridges and several culverts constructed.

Municipality of Ciales: Repairs of 3.182 kilometers.

Municipality of Morovis: Repair of 1.343 kilometers after dry stone drains were built.

Municipality of Arecibo: Repair of 22.400 kilometers of roads and 2 bridges.

Municipality of Camuy: Repair of 7.446 kilometers of roads.

Grand total for the district of Arecibo, 65.371 kilometers of roads repaired. The expenditures for the work performed are not stated.

No. 3.—DISTRICT OF AGUADILLA.

Only reports that the sum of \$4,070.75 has been expended during the fiscal year 1903-4 in the repairs of the vicinal and rural roads of the district.

No. 4.—DISTRICT OF MAYAGUEZ.

Has failed to report.

No. 5.—DISTRICT OF PONCE.

In the municipality of Ponce 20.900 kilometers of vicinal and rural roads repaired; also 36 culverts and 12 small timber bridges built. Repair of timber pile bridge over Rio Marueño.

Municipality of Juana Diaz: Repair of 3.296 kilometers of road and several culverts.

Municipality of Coamo: Repair of 7.60 kilometers of road, and 15 drains built.

Total for the district of Ponce, 31.800 kilometers of roads repaired, including 48 large culverts and 17 drains, besides the surveys for convenient changes of location in certain portions in 10 different roads.

The total expenditure reported is as follows: Municipality of Ponce, \$6,900.86; municipality of Juana Diaz, \$2,120.60; municipality of Coamo, \$996.52. Total, \$10,018.04.

No. 6.—DISTRICT OF GUAYAMA.

This district is the best organized; it has been subdivided in 3 divisions, each in charge of one of the road supervisors, as follows:

Division of Caguas: Comprises 3 vicinal roads and 10 rural roads. Works of repairs have been carried out in about 1.300 kilometers of the first and 6.400 kilometers of the second, with an expenditure of \$1,660.32.

Division of Aibonito: Comprises 8 vicinal and 20 rural roads. Repairs were made on 14.436 kilometers of vicinal roads and of 14 bridges thereon, and 23.662 kilometers of rural roads and 14 bridges. The total expenditure was \$4,353.39.

Division of Guayama: Comprises 4 vicinal and 20 rural roads. Repairs were made on 1.711 kilometers of vicinal roads and on 29.726 kilometers of rural roads. The expenditure was \$3,779.58.

No. 7.—DISTRICT OF HUMACAO.

Reports repair on 2 vicinal roads and on 8 rural roads, as follows:

Municipality of Humacao: Repairs on 12 kilometers of road; construction of 6 dry stone drains and 1 wooden bridge.

Municipality of Fajardo: Repairs on 2.537 kilometers of road and construction of 3 masonry culverts.

Municipality of Naguabo: Seven hundred meters of road repaired; 2 wooden bridges constructed and 5 repaired.

Municipality of Rio Piedras: Eight hundred meters of road repaired.

The work in the municipality of Carolina and Rio Grande of this district is not reported. The expenditure is not stated.

In all the districts the principal work of repair has been in the nature of filling mudholes, widening the formation, cutting ditches for drainage, repairs to timber bridges, and construction of small drains.

VII.—FRANCHISES.

The franchises granted by the executive council during the fiscal year 1903-4, notified to the bureau of public works, the plans examined in connection thereof for the approval of the commissioner of the interior or for information to the executive council, the projects for municipal works examined for recommendation to the governor, and permits for crossing public highways and for other uses of the public domain are as follows:

No. 1, October 15, 1903: Franchise granting the American Railroad Company of Porto Rico the right to construct a branch track to the town of Mayaguez.

No. 2, October 16, 1903: Franchise granting to Mr. Percy Saint the right to extract and market phosphate and guano on the islands of Mona and Monito.

No. 3, October 16, 1903: Franchise granting the Luz Electrica Company, of Ponce, the right to generate and sell electricity in the municipality of Ponce.

Under franchises granted in the present fiscal year and in previous years, plans have been submitted and approved as follows:

September 21, 1903: American Railroad Company of Porto Rico. Project for the construction of the section of road between Guayama and kilometer 62.640.

October 1, 1903: American Railroad Company of Porto Rico. Plan for a temporary wooden bridge of 80 meters span over the Portugues River.

August 26, 1903: The Vandergrift Construction Company. Map and profile of proposed railroad from San Juan to Playa Ponce.

October 20, 1903: American Railroad Company of Porto Rico. Plans for extension of line to Mayaguez.

December 29, 1903: Sociedad Anonima de Luz Electrica of Ponce. Sketch of streets on which the company proposes to extend its lines.

January 15, 1904: Sociedad Anonima de Luz Electrica of Ponce. Plans of the poles, with description of attachments.

February 2, 1904: American Railroad Company of Porto Rico. Plans for a switch of 150 meters in length connected with their track on the bulkhead, close by the pier of the New York and Porto Rico Steamship Company.

March 12, 1904: Ponce Light and Power Company. Plans for proposed spur track at Ponce Playa.

May 16, 1904: Porto Rico Railway Light and Power Company. Plans for two temporary bridges.

June 4, 1904: Porto Rico Railway, Light and Power Company. Map and profile of proposed line from San Juan to Martin Pena Canal.

EXAMINATION OF PLANS FOR MUNICIPAL WORKS AND OTHERS.

August 10, 1903: Municipality of Ponce. Project for extension of Plaza del Mercado in the city.

August 18, 1903: Attorney-general. Directs preparation of plans for building a new jail at Ponce.

August 20, 1903: Alcaldia of Ponce. Plans for the placing of a tablet with inscription in the Viaducto Otero.

September 14, 1903: Municipality of San Juan. Project for the alteration of the old sewer system of the city.

October 3, 1903: Municipality of Yauco. Project for the construction of a municipal slaughterhouse.

November 25, 1903: Municipality of Santa Isabel. Project submitted by Ramon Torres to establish a steam motor pump to raise water from the Caño Mejias for irrigating purposes.

January 26, 1904: J. Fantauzzi, of Arroyo. Plan for the construction of a telephone line between their office in Arroyo and their estates Felicita and Cuatro Calles.

March 11, 1904: Alcalde of Mayaguez. Plans for alterations to San Antonio Hospital.

April 7, 1904: Alcalde of Mayaguez. Project for repairs to aqueduct.

PERMITS FOR CROSSING PUBLIC ROADS AND FOR OTHER USES OF THE PUBLIC DOMAIN.

July 1, 1903: Sucesores de Frontera, of Mayaguez. Permit to enlarge a shed on the water front at Mayaguez.

July 4, 1903: Compania de Redes Telefonicas of Ponce. Permit to reconstruct their lines outside of the city limits.

November 4, 1903: Justo Barros, of Ponce. Permit to cross the central road near Juana Diaz with a portable railway for transportation of sugar cane from one plantation to another.

November 22, 1903: W. J. Lowrie, of Salinas. Permit to cross the Ponce-Guayama road with their track at kilometer 5½ from Guayama.

December 30, 1903: Santiago Sambolin, of Mayaguez. Permit to cross the railroad track at kilometer 18, for transporting sugar cane.

January 2, 1904: manager Central Canovanas, of Carolina. Permit to cross the road near Rio Grande with a railway track between kilometers 22 and 23, for hauling cane.

February 17, 1904: W. J. Lowrie, manager Central Aguirre. Permit to cross the Ponce-Guayama road with their railroad track at kilometer 35.54, for the purpose of hauling sugar cane.

March 10, 1904: Marcos Calderon and five others. Permit to place a boat on the river Loiza near Carolina.

April 12, 1904: Ramon Valdes, of Catano. Permit to establish a branch track at Catano.

May 18, 1904: Justo Barros, of Ponce. Permit to make certain changes in the irrigation of La Reparada estate.

RAILROAD CONSTRUCTION IN PORTO RICO.

When the Americans took final possession of the island of Porto Rico, on October 18, 1898, the railways existing on the island and in operation were those built under a franchise with guaranteed interest by the Compañía de los Ferrocarriles de Puerto Rico, as follows:

	Kilometers.
San Juan to Camuy	100
Aguadilla to Mayaguez	54
Yauco to Ponce	35
Martin Pena to Carolina	14
Total	203

There were also two short lines under franchises granted to Pablo Ubarri and Ramon Valdes for tramways operated by steam power. The first was granted February 18, 1878, for sixty years, from San Juan to Rio Piedras, a distance of 12 kilometers. The gauge was 0.76 centimeter. The second, for a period of seventy years, from Catano to Bayamon, a distance of 7.5 kilometers, the gauge being 1 meter.

There was also a 2-foot gauge railway in operation between Mayaguez and Alto Sano, near San Sebastian, this being a portion of 17 kilometers of the line 45 kilometers long to be built between Mayaguez and Lares, via San Sebastian, under a franchise granted in the year 1896 to J. Tornabells. This road was opened to traffic in January, 1898, but was unsuccessful financially, and finally collapsed in December, 1902.

The Compañía de los Ferrocarriles de Puerto Rico, to settle its claims against the government of Porto Rico, had its franchise renewed under an ordinance of the executive council dated October 28, 1901.

The American Railroad Company of Porto Rico, successor of the old company, has continued construction under the new franchise, and 43 kilometers of railroad between Hormigueros and Yauco were opened in October, 1903, finally connecting the cities of Aguadilla and Mayaguez with Ponce and Yauco and giving great impulse to the sugar-cane industry by the facilities afforded to the transportation of cane to the different factories from the rich valleys traversed by the line. Several extensions of the track have been made as follows: From Carolina to central Buena Vista; from the main line near Arecibo to that town; from the main line in Mayaguez to the harbor of Mayaguez, and from the main line in Aguadilla to the harbor of Aguadilla.

Owing to damages inflicted by the floods during the cyclone of 1899 the company had to rebuild the following bridges: Across the Anasco River, of 80 meters span; across the Anasco River, of 25 meters span; across the Manati River, of 80 meters span, and across the Manati River, of 10 meters span. On La Plata bridge repairs to one of the abutments of the bridge and reconstruction of the embankments of the approaches.

The line from Ponce to Guayama comprised in the franchise of the American Railroad Company was assigned, with the consent of the executive council, granted by ordinance of July, 1902, to a corporation called "American Railroad Company, Central Aguirre Operator." The line is about 56 kilometers in length, of which over 25 kilometers have been constructed and are in operation for the transportation of sugar cane to the Central Aguirre.

The steam tramway from San Juan to Rio Piedras was bought early under the military government by an American company. The owners immediately, with American activity, wanted to improve the line and were subsequently authorized to widen the gauge, substitute electric for steam power, and build a loop track into the city of San Juan.

This trolley line now has a fifteen-minute service to Santurce at a uniform fare of 5 cents, and 10 cents to Rio Piedras, giving entire satisfaction to the public.

Its progressive and intelligent management has created an amusement resort by the seashore, about 1 kilometer off the insular road, called "Borinquen Park," which proves to be a great inducement to the residents of San Juan for outdoor relaxation, especially on Sundays and holidays. It has also been instrumental in the development of house building about Santurce and in enhancing the value of the landed property from San Juan to Rio Piedras.

The tramway from Catano to Bayamon has not had the same good luck as the above, and has for the present no prospect of improvement. Its rolling stock, composed of two small 7-ton locomotives, four passenger cars, and ten four-wheeled cargo cars, is the same, with the exception of two passenger cars, with which the road was opened for operation twenty-two years ago.

The permanent way is laid with light rails, which when new weighed 15 kilograms to the linear meter, fastened to wooden sleepers laid on ballast, to be, under the specifications, of broken stone or other suitable material.

As it is said under the head of "franchises," the technical inspection of the railways has been neglected for some reasons, with the result that when the former superintendent of public works, the able Mr. Stierle, after hearing several complaints, decided to make an inspection of this tramway a sad condition of affairs was revealed, as shown by the report of the inspector, from which I quote the following:

"The line is in bad condition, endangering the lives of passengers. Over 2,000 cross-ties are decayed, some totally rotten; many stretches of the track are without any ballast, and nowhere the broken-stone ballast specified is to be seen. All timber bridges are in bad condition, and the Aguas Frias bridge, 5½ meters span, is especially dangerous. With a slight pressure in one of the main girders a hole 8 centimeters deep was made, which gives an idea of the great peril menacing this bridge, the repair of which is urgent and imperative for public safety."

The superintendent of public works directed the manager to make repairs at once on the bridge, and within the shortest possible delay for the rest of the line.

So little regard to the safety of passengers, besides its high tariff, renders this conveyance at least objectionable. Its irregular one-hour service ending at 6 p. m., which can not be improved for lack of rolling stock, does not offer facilities for inviting the people of San Juan to favor Bayamon, in spite of the attractiveness of the country.

Mention should be made of the small 2-foot-gauge urban horse tramway built by the Compañía del Tramvia de Mayaguez in 1896, for service between the town and the playa, having a total development as originally constructed of nearly 7 kilometers, which was later, in 1897, extended 1.600 kilometers to Guanajibo Playa by another concession to L. Ninliatt. Only about 2 kilometers of this street tramway is now in operation and its traffic has decreased, owing to the depression of business at Mayaguez.

After the installation of the civil government in Porto Rico a franchise was granted by the executive council on February 27, 1901, to W. S. Lothrop, to establish and operate an electric street railway in the city of Ponce and between Ponce and Ponce Playa. The line has a gauge of 1 meter and a total development of over 6 kilometers. It began operations May 27, 1901, was opened to the public in May, 1902, and is working satisfactorily.

VIII.—MISCELLANEOUS.

Under this heading I desire merely to mention some labors of this bureau that have not found place in the preceding chapters.

Under the care of the chief clerk all vouchers, pay rolls, and accounts pertaining to the office and field operations are carefully examined, computed, and prepared for the signature of the superintendent, when they are recorded in the books and turned over to the disbursing officer for payment.

Over 6,000 vouchers have thus been passed upon during the fiscal year, besides quite a number of statements, balances, and correspondence relating to accounts.

In the drafting division 649 original plans and tracings have been made, 1,320 blueprints of plans, 140 different photographic plates, and 780 copies.

In this division the bureau has installed and in operation one recording barometer and one recording seismograph. The former gives a complete diagram wherein all variations of the atmospheric pressure at any moment of the day may be read. The seismograph registers the direction and duration of all earthquakes. There have been during the year only nine slight shocks registered, the maximum duration being one and seven-tenths seconds for one registered on July 26, 1903.

By the clerks in charge of the books of entries and orders over 3,000 orders and requisitions have been prepared for the supplying of tools, stationery, and other effects required for the extensive service of the public works in the whole island, and over 5,000 letters have been recorded and answered during the fiscal year.

The mimeograph installed in the office May 10 has been actively engaged since, and 300 copies of circulars, contracts, and specifications have been made.

In the division of property the inventories of all the personal property have been prepared in accordance with the recent law, approved March 15, 1904, entitled "An act to provide for the taking of an inventory of all personal property of the insular

government, and detailing a clerk in the office of the auditor who shall have charge of the records of such property."

Under another act of same date authorizing the sale of the building known as the "agricultural station" of Rio Piedras by the commissioner of the interior, in compliance with your instructions I had that property appraised by three respectable citizens, and recently reported to you for further action.

I also appointed, on May 11, 1904, two qualified appraisers for listing and appraising the insular personal property formerly belonging to the several harbor works and now in charge of the bureau of public works, in order to comply with the provisions of the law enacted May 10, 1904, authorizing the sale of all such property which will not be of further service to the public works. Most of this property is at San Juan and its appraisalment is nearing completion.

RECOMMENDATIONS.

Perhaps, in my temporary position as acting superintendent of public works, with little chance, for lack of fitness, though for no lack of devotion to the task, of being designated to fill the responsible duties of the superintendent of public works, I had better leave to the future incumbent the honor of making the recommendations concerning the general policy to be followed with regard to the public works, as required by law; but having been requested by you to write the annual report of the operations of the bureau, a difficult task from the fact that my predecessor shone in that field so brightly, I feel compelled to comply with the requirements of the law and make a few suggestions which, in any event, could be modified or entirely disregarded were they not thought conducive to any advantage in the administration of the public works.

As to roads and bridges I would recommend that the list of 14 roads described before be considered as the general plan of the insular roads, the completion of which within the shortest possible period should be the aim of the bureau.

Nearly 549 kilometers of these roads are already completed and in maintenance, comprising the principal trunk lines and branches facilitating transportation to towns on the seaboard. These roads should be constructed in general under the specifications for cross sections, roadway, grades, etc., adopted for the main insular roads, the width of the formation to be no less than 6 meters, with 4.5 meters macadam at least 0.15 meter deep, these dimensions to be increased only near the principal towns of San Juan, Ponce, and Mayaguez, where the volume of traffic would justify such increase, and slightly decreased in the mountainous regions of the interior, where grades could also be adopted as high as 7 per cent, and even more in special cases for special reasons.

There remain still about 400 kilometers of these internal lines to be constructed, and for their construction a number of years and nearly \$3,000,000 will be required. How the funds needed will be supplied is a problem to be confronted by our legislative assembly.

On the completed roads there are a number of bridges much needed for the benefit of the traffic, sadly hampered by the lack of these structures, which would greatly favor rapid and economic transportation by suppressing many inconvenient and dangerous fords.

LIST OF BRIDGES REQUIRED.

Road No. 1: Across Rio Caguaitas, near Caguas. Road No. 2: Across Rio La Plata, near Vega Alta. Road No. 5: Across Rio Valenciano, near Juncos; across Quebrada Mameyes, near Gurabo. Road No. 6: Across Rio Grande de Arecibo, near Utuado; across Rio Pellejas, near Utuado. Road No. 7: Across Rio Grande de Loiza, near Carolina; across Rio Mameyes, near Rio Grande; across Rio Grande de Loiza, near Rio Grande; across Rio Espiritu Santo, near Rio Grande; across Quebrada Candelaria, in Carolina; across Quebrada Polaco, in Carolina. Road No. 8: Across Rio Guajataca, near San Sebastian; across Quebrada Font, near San Sebastian. Road No. 9: Across Rio La Plata, near Comerio. Road No. 11: Across Rio Cialitos, near Ciales; across Rio Morovis, near Morovis.

Their construction would involve an expenditure of about \$500,000.

(2) In regard to granting of franchises, presentation of plans and projects for same, and supervision of the work during construction and thereafter when in operation, I would make the following recommendations:

A set of instructions should be formulated for the presentation of projects and plans by the petitioners, in order that proper descriptions, plans, and specifications

be uniformly prepared, exposing clearly the convenience, possibility, and usefulness of the contemplated project; the subsequent construction plans should also be sufficiently detailed, and drawn to convenient scales for showing that the construction will be in accordance with the conditions set forth in the franchise. The petitioners should bear the expense incurred by the bureau in the examination of plans and projects submitted, the reconnoissance of the locality of the works proposed, and the inspection during construction and after completion, if deemed necessary. The Spanish laws, which to some extent are still in force, provided for the payment by the applicant at least for the expenses incurred outside of the office, as traveling expenses and engineer fees.

Under the Spanish laws all railroads in operation under franchises duly granted were subject to the law of railroads of 1889 and to the police law of railroads and regulations for its application of 1888, besides the special conditions in their respective concessions. The inspection and supervision was exercised by the "jefatura de obras publicas" as delegate of the governor of the island, and the regulations were enforced for the protection of the public welfare, health, and safety. Under new conditions obtaining after the American possession of the island, the enforcement of these regulations to make grantees comply with their respective franchises was neglected by the bureau, on account, perhaps, that it was not thought in consonance with American methods, for the governor was reluctant to impose upon the companies the fines which under the law and regulations they had incurred for breach of provisions of said laws or conditions in the franchises. The result is that some owners of these old franchises have begun to consider their railroads as private property and not as public institutions enjoying valuable privileges granted them by the people, and having for that reason corresponding duties and obligations to the people, which it is important to exact.

The first attorney-general of Porto Rico, the Hon. James H. Harlan, emitted the opinion that the control by the government established in the police law of railroads was not repealed by any express enactment and was still in force, "the jurisdiction under it lodged in the commissioner of the interior to be exercised by him through the board of public works, subject to the intervention of the Governor, as set forth."

The spirit in the Spanish laws is to obtain by a careful inspection and enforcement of the technical conditions during construction and operation all possible safety for the passengers and traffic which grantees, for ill-understood economy, would frequently neglect were they not compelled to by close supervision. This control of the governor and enforcement of good construction tends to prevent sad accidents, for which, however, the companies are responsible should any occur, in spite of the supervision.

In the United States the prompt action of the courts in placing responsibilities in case of accidents is a strong check to the greediness of unscrupulous managers, but the long and slow procedure of the Spanish tribunals made it necessary to provide in the railroad laws for the more expeditious intervention of the executive in behalf of the public welfare. It seems, therefore, proper to recommend that some legislative action be taken to enforce these railroad laws, after enacting the necessary amendments to tune them to present conditions.

(3) Section 406 of the Political Code provides that there shall be established in the bureau of public works a laboratory for the testing of materials used in the construction of the public works. For lack of proper appropriation in the regular budget the bureau has not been able to purchase any new testing apparatus, so our laboratory is quite in embryo—we have hardly the necessary outfit to make complete cement tests. Nevertheless, since the year 1900 we have examined about 20 different brands of cement and made over 2,000 tests. The convenience of the proper installation of the testing laboratory for the materials of construction is obvious, and I recommend that in every budget an adequate appropriation be made toward its completion and maintenance.

The following plans and documents are attached to this report:

1. Diagram showing road work accomplished in Porto Rico under the Spanish and American Governments.
2. Map of the island, showing the proposed general plan of insular roads, sections of same already constructed, under construction, or repaired; vicinal roads constructed or repaired by the bureau of public works; railroads in operation or constructed, and the division of the island in seven vicinal and rural road districts.
3. Views of road work and convict camps.
4. Appendix A, report of the disbursing officer, with table showing disbursements.
5. Appendix B, report of the San Juan district engineer.
6. Appendix C, report of the Ponce district engineer.
7. Appendix D, report of the Mayaguez district engineer.

8. Appendix E, report of the supervisor of buildings.
 9. Appendix F, report of the supervisor of public lands and buildings.
 10. Appendix G, list of bids and awards for 1903-4.
 11. Appendix H, list of the local laws concerning the public works wholly or partially in force from October 18, 1898, to June 30, 1904.
 12. Appendix I, business methods of the bureau shown in the construction of a section of road near Las Marias.
 13. Appendix K, test made in the "road material laboratory" at Washington of twelve samples of rock used in road work in Porto Rico.
- Respectfully submitted.

P. F. FERNANDEZ,
Acting Superintendent of Public Works.

HON. W. H. ELLIOTT,
Commissioner of the Interior.

APPENDIX A.

REPORT OF THE DISBURSING OFFICER.

BUREAU OF PUBLIC WORKS,
San Juan, P. R., June 28, 1904.

SIR: In compliance with your instructions I have the honor to submit my report covering the period from July 1, 1903, to May 31, 1904.

In the annual report of the Commissioner of the Interior for the fiscal year 1902-3 will be found a complete description of the system employed in this office, and it seems unnecessary, therefore, to mention it again. The only real change in the general details of the office work has been in the payment of camineros by check. These were heretofore paid in the same manner as the laborers—that is, by means of cash put up in envelopes. Now, however, the day laborers are the only ones receiving pay in that manner. There has been expended in this way \$134,217.55 put up in 30,314 envelopes, the same degree of efficiency being maintained as was shown in previous years.

Accompanying this letter is a tabulated statement showing all of the expenditures of the Bureau of Public Works in accordance with appropriations and allotments.

No one could ask for better service than has been shown by the clerks under my control; they are without exception diligent, conscientious, and able, and to them is due any credit that may belong to the disbursing office of the Bureau of Public Works.

I am, very respectfully,

WM. C. SMITH, *Disbursing Officer.*

MR. P. F. FERNANDEZ,
Acting Superintendent of Public Works, San Juan, P. R.

NO FISCAL YEAR.

Date.	Permanent re-pairs, insane asylum.		Plumbing system, San Juan jail.		Building cells, insane asylum.		Construction of jail in Ponce.		Construction of jail in Arecibo.		Contingent expenses, survey of public lands.		Convict labor.				Total.	
	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.
1903.																		
July.....	5	\$1,399.97	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	\$1,399.97
August.....	9	1,962.05	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20	.....	.....	2,595.11
September.....	10	667.84	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24	.....	.....	2,529.29
October.....	12	1,511.95	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	33	.....	.....	2,897.01
November.....	7	441.17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	39	.....	.....	2,344.73
December.....	10	1,508.54	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	43	.....	.....	3,584.55
1904.																		
January.....	7	1,412.33	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	37	.....	.....	3,819.35
February.....	2	65.87	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22	.....	.....	620.72
March.....	2	33.91	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15	.....	.....	486.01
April.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18	.....	.....	697.94
May.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	.....	.....	246.08
Total.....	64	9,033.63	6	1,000.00	4	67.85	17	1,382.89	6	296.70	9	500.00	103	5,561.41	58	3,378.28	267	21,220.76

TRUST FUND—Continued.

Date.	Adjuntas- Utuaño.	Manati- Ciales— Lot 2.	Mavilla River bridge.	San Sebas- tian- Lares.	Yauco-Sa- bana Grande.	Yaba- coa-Mau- nabo.	Bayamon- Comerio.	Añasco River bridge.	Portuguez River bridge.	Ponce- Guayama.	Camuy- Aguadilla.	Naguabo- Naguabo Playa.	Mayaguez- Cabo Rojo.	Grand total.													
	Vouchers.	Vouchers.	Vouchers.	Vouchers.	Vouchers.	Vouchers.	Vouchers.	Vouchers.	Vouchers.	Vouchers.	Vouchers.	Vouchers.	Vouchers.	Vouchers.													
	Amount.	Amount.	Amount.	Amount.	Amount.	Amount.	Amount.	Amount.	Amount.	Amount.	Amount.	Amount.	Amount.	Amount.													
1903.																											
July.....	3	\$2,006.77	1	\$20.90	5	\$633.42	33	\$5,118.14	5	\$494.55	12	1,223.16	21	974.34	10	11,815.89	2	\$71.74	6	\$230.35	33	\$969.46	19	\$1,856.12	123	\$31,266.40	
Aug.....	5	1,773.62	1	27.09	8	615.35	12	1,223.16	21	974.34	10	11,815.89	2	974.34	10	11,815.89	2	974.34	10	11,815.89	2	974.34	10	11,815.89	191	27,234.58	
Sept.....	1	1,329.80	1	895.50	2	151.60	2	2,556.48	23	118.65	5	9,390.77	5	9,390.77	5	9,390.77	5	9,390.77	5	9,390.77	5	9,390.77	5	9,390.77	167	28,908.91	
Oct.....	1	1,116.84	1	1,335.69	1	73.87	1	35.00	11	9,390.77	5	9,390.77	5	9,390.77	5	9,390.77	5	9,390.77	5	9,390.77	5	9,390.77	5	9,390.77	149	37,965.67	
Nov.....	1	7.34	1	720.82	1	123,103.55	1	51.25	7	1,718.20	4	113.30	177	26,909.84		
Dec.....	2	77.40	5	181	65,603.10		
1904.																											
Jan.....	7	855.44	.....	1	59.50	1	15.00	.....	.....	.....	.....	.....	.....	.....						
Feb.....	3	164.45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Mar.....	9	70.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Apr.....	3	140.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
May.....	4	117.59	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Total.	2	6,934.69	47	7,652.86	9	3,000.00	40	25,028.42	147	20,634.89	83	7,140.82	71	76,778.44	50	6,719.45	10	4,092.80	125	11,046.57	192	10,993.67	85	1,003.02	34	2,503.46	2,026,333,416.23

RECAPITULATION.

	Voucher.	Amount.
Regular budget.....	3,541	\$228,621.48
No fiscal year.....	267	21,220.76
Trust fund.....	2,026	333,416.23
Grand total.....	5,834	583,258.47

REPORT OF THE DISBURSING OFFICER FOR THE MONTH OF JUNE, 1904.

SAN JUAN, P. R., *July 11, 1904.*

SIR: I have the honor to transmit herewith report of the last month of the fiscal year 1903-4, together with a close estimate of the liabilities still unpaid for that year.

These unpaid liabilities consist of bills due at this time and contracts that will not be completed for some weeks to come, although entered into before the finish of the year.

I am, very respectfully,

WM. C. SMITH,

Chief of Division and Disbursing Officer.

Mr. P. F. FERNANDEZ,

Superintendent of Public Works, San Juan, P. R.

REGULAR BUDGET.

	Salaries.		Contingent expenses.			Maintenance and repair of roads.				Maintenance and repair of public buildings.				Executive mansion.		Total.								
	Office force.	Field force.	Office supplies.	Inspection and travel.	Purchase and repair of instruments, etc.	Rent of tool sheds.	Bridges, culverts, etc.		Broken stone, etc.	Preservation, etc.		Electric lights.		Vouchers.	Amount.	Vouchers.	Amount.							
							Vouchers.	Amount.		Vouchers.	Amount.	Vouchers.	Amount.					Vouchers.	Amount.					
As per report rendered to May 31, 1904 ..	56	\$23,534.87	111	\$1,024.07	106	\$2,431.17	5	\$267.86	303	\$1,134.49	162	\$6,632.20	810	\$57,955.47	477	\$10,617.29	20	\$4,189.91	265	\$10,992.29	3,541	\$298,621.48		
June	5	1,994.84	104	10,106.87	21	569.34	11	189.70	2	87.62	54	215.00	5	71.25	90	1,982.02	61	1,329.72	2	446.37	20	783.39	375	17,778.12
Estimated liabilities on June 30, 1904 ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total.....	61	25,529.71	1,330	130,068.61	132	1,700.00	117	3,000.00	7	455.48	357	1,500.00	167	7,000.00	900	73,000.00	538	15,212.71	22	5,086.28	285	12,300.00	3,916	275,062.77

NO FISCAL YEAR.

	Permanent repairs insane asylum.		Plumbing system, San Juan jail.		Building cells, insane asylum.		Construction of jail in Ponce.		Construction of jail in Arecibo.		Contingent expenses, survey of public lands.		Convict labor.				Total.	
	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Humacao road.	Yabucoa road.	Jayuya road.	Total.		
As per report rendered to May 31, 1904 ..	64	\$9,033.63	6	\$1,000.00	4	\$67.85	17	\$1,382.89	6	\$26.70	9	\$500.00	103	\$5,561.41	58	\$3,378.28	3,541	\$228,621.48
June	4	168.40	..	..	..	..	..	..	1	2.00	..	..	1	38.10	2	60.30	8	268.80
Total	68	9,202.03	6	1,000.00	4	67.85	17	1,382.89	7	298.70	9	500.00	104	5,599.51	60	3,438.58	3,549	228,890.28

TRUST FUND.

	San German-Lajas.		Caguas-San Lorenzo.		Aibonito-Barranquitas.		Mayaguez-Consumo.		Las Marias.		Arroyo-Pautilas.		Arecibo-Ponce.		Vega Alta.		Mameyes-Fajardo.		San German-Pezucla Bridge.	
	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.
As per report rendered May 31, 1904.....	82	\$4,252.69	199	\$15,000.00	207	\$14,924.01	233	\$13,026.84	44	\$2,864.76	15	\$1,201.85	61	\$71,992.55	70	\$4,710.84	94	\$7,278.47	2	\$91.77
June.....	3	120.65	.....	.....	1	75.99	17	920.62	4	154.10	1	3.00	4	2,109.94	.....	.....	21	2,586.71	21	1,626.01
Total.....	85	4,373.34	199	15,000.00	208	15,000.00	250	13,947.46	48	3,018.86	16	1,204.85	65	74,102.49	70	4,710.84	115	9,865.18	23	1,717.78
	Fajardo-Naguabo.		Consumo-Maricao.		Sabana Grande-San German.		Rio Piedras-Trujillo Alto.		Manati-Ciales-Morovis Branch.		Adjuntas-Utuado.		Manati-Ciales-Lot No. 2.		Mavilla River San Sebastian-Lares.		Yauco-Sabanilla Grande.			
	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.		
As per report rendered May 31, 1904.....	93	\$8,640.48	24	\$1,452.30	20	\$1,418.31	32	\$2,026.27	.....	.....	2	\$6,934.69	47	\$7,652.86	9	\$3,000.00	40	\$26,028.42	147	\$20,634.89
June.....	37	3,358.90	21	1,529.86	35	1,972.83	31	1,883.97	2	\$22.65	.....	.....	3	120.07	.....	.....	36	2,313.31	9	270.72
Total.....	130	11,999.38	45	2,982.16	55	3,391.14	63	3,910.24	2	22.65	2	6,934.69	50	7,772.93	9	3,000.00	76	28,341.73	156	20,905.61

	Yabucoa-Manabo.		Bayamon-Co-merio.		Afasco River Bridge.		Portuguez River Bridge.		Ponce-Guayama.		Camuy-Aguadilla.		Naguabo-Naguabo Playa.		Mayaguez-Cabo Rojo.		Total.	
	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.	Vouchers.	Amount.
As per report rendered May 31, 1904.....	88	\$7,140.82	71	\$76,778.44	50	\$6,719.45	10	\$4,092.80	125	\$11,046.57	192	\$10,999.67	35	\$1,003.02	34	\$2,503.46	2,026	\$333,416.23
June.....	13	853.80	1	6.21	2	890.49	.....	.....	31	2,995.44	86	4,150.57	.....	.....	.....	.....	379	27,964.84
Total.....	101	7,994.62	72	76,783.65	52	7,609.94	10	4,092.80	156	14,042.01	278	15,150.24	35	1,003.02	34	2,503.46	2,405	361,381.07

RECAPITULATION.

	Vouchers.	Amount.
Regular budget 1903-4, including estimated liabilities.....	3,916	\$275,052.77
No fiscal year.....	3,549	228,890.28
Trust fund.....	2,405	361,381.07
Grand total year 1903-4.....	9,870	865,324.12

APPENDIX B.

REPORT OF THE SAN JUAN DISTRICT ENGINEER.

BUREAU OF PUBLIC WORKS,
San Juan, P. R., June 30, 1904.

SIR: As the fiscal year draws to a close it becomes my duty to report to you the different works executed in the district of San Juan during the year and at the same time to submit to your wise consideration certain suggestions which though extending perhaps beyond the scope of my duties are nevertheless related to and affect in many respects the important economical problem of the maintenance of our roads.

From the results obtained during past years, and particularly during the last two years, I have arrived at the conclusion that if we propose to keep our roads in regular condition as heretofore very little economy might be hereafter obtained in the cost of maintenance as compared to the one resulting during the ending year.

The different methods of maintenance, varying generally in the different organizations of the service, and methods adopted in carrying out repair work, whether by contract or day labor, might be classified in two, as follows: "Periodical maintenance" and "Regular maintenance."

To repair roads periodically, or at times only, following the first method, would demand large expenditures at that special time when the roads through long wear and tear and neglect are in such a poor condition that it becomes imperative to restore them to their original cross section. This method has been abandoned in many countries owing to the fact that immediate repairs are impossible in times of excessive rainfall, when great damages frequently occur on the roads through the effects of the rains. Again, it would be impracticable to apply that method to Porto Rico for economical reasons.

Only in large countries of vast wealth and resources could such system of maintenance be applied, though the prevailing opinion among those who have taken up the matter reject it.

On the other hand, all engineers agree to-day that the "regular maintenance" is the least expensive, following the principle that a stitch in time saves nine, for it is easier and cheaper to patch up small holes as they appear than to allow the formation of gulleys, mud holes, or any other serious disintegration of the road surface.

Keeping these facts before us it is easy to realize that if we must keep our roads in fair condition it is necessary to count with the means to get at any time the materials and labor required to attend to the repairs of the road at once, when needed. In this connection I would add that it would be somewhat difficult to determine beforehand the amount of stone required to maintain 1 kilometer of road during the year, even if we admit that the road is in excellent condition upon being turned over for maintenance, the estimate depending largely upon the quality of the stone used and the amount of traffic over the road. But taking for granted that we possess all this information it is difficult to appreciate to a certainty the wearing off of a road during the year, for even if we measure directly on the road the reduction in thickness of the material the results obtained would be in my opinion far from being accurate.

Observation of facts, however, compels us to admit that under ordinary circumstances and with materials of average consistency, which are the most adequate for road building, as limestone, at least 40 or 50 cubic meters of crushed stone are necessary to maintain 1 kilometer of road during one year.

The service of maintenance does not consist exclusively in the continuous patching up of the road surface. We have to struggle in Porto Rico with two formidable enemies of our roads—the heavy rains peculiar to the country and its exuberant vegetation, which grows and spreads rapidly during all seasons of the year. The rains are the cause of much damage to the roads and sometimes to a considerable extent to the masonry work, ditches, slopes, etc. As to the vegetation, it is a great obstacle to the proper drainage of the road.

The yearly sums appropriated in the regular budget for the maintenance of roads, far from being excessive, are very limited and will only permit a very slow improvement in the conditions of a certain number of our roads. It will require some time before some sections could be materially improved.

The same should be said with regard to certain masonry works and defense works which need repairs.

Consequently if the island of Porto Rico needs now an annual appropriation of \$180,000, more or less, to attend to the maintenance of the 600 kilometers already built, nearly \$500,000 would be required the day when, meeting the pressing demands

of our increasing traffic all over the country, we have accomplished the plan of building the principal roads of the island.

Communication between the different localities of the island depend mainly on our roads, for though there are a few kilometers of railroad in operation this is restricted to a comparatively small area with regard to the rest of the island; the general traffic being served through our trunk lines and country roads.

Road construction, however, does not meet efficiently the demands of modern life and activity. Economy in cost is an important factor in its favor, but this does not compensate the economy in time and money which rapid transportation affords to commerce and the public in general; besides that, roads are always a heavy and constant burden to the public treasury.

Railroad construction is more expensive, but once in operation generally yield sufficient profits to pay the cost of maintenance, being in many cases an important source of wealth and very seldom a charge to the public treasury.

The maintenance of our roads is a serious problem that we will have to confront in the near future if road building is to be continued at the same rate of progress as started since the American occupation; and now I would ask if the time has not arrived to consider carefully the convenience of developing in Porto Rico a system of railroads upon an economic plan, which could be undertaken by the island under subsidy of interest or through franchises to public corporations or private parties upon the same basis of a guaranteed interest by the island.

The enormous reduction in rates for long-distance transportation in the United States has attained such proportions as to make it possible to haul any kind of merchandise over a distance of 50 miles on a railroad line for the same amount that would be charged for 1 mile on any kind of conveyance drawn by animal force.

The American Government has loaned a protective hand to long-distance railroads, such as those crossing the vast plains of the West and those going through the mountains on the Pacific coast. There are many countries in Europe whose governments subsidize hundreds of kilometers of railroad lines.

My remarks on this subject do not tend to establish the criterion that we should discard altogether road construction and substitute it by railroads. There are many cases in which local and other conditions would advise the construction of a road instead of a railroad line. However, I wish to point out that the time is drawing near when we should adopt a policy for the future with regard to prospective construction of roads in Porto Rico and their adequate maintenance consistent with the financial resources of the island.

There has been during the present year an increase of 39 kilometers of new roads turned over to maintenance in the district of San Juan, which is now divided into 16 sections, as against 13 during the past fiscal year.

The actual length of roads under maintenance in the district amounts to 275.3 kilometers, classified as follows:

TABLE No. 1.—*Sections of roads under maintenance in the district of San Juan and permanent force employed therein, from July 1, 1903, to July 1, 1904.*

Road No.	Section.	Length.	Camioneros, at \$240.	Capataces, at \$360.	Sobretantes, at \$900.	Watchmen, at \$360.	Engine driver, at \$720	District engineer, at \$1,800.	
		<i>Kms.</i>							
1	San Juan to kilometer 21	21	7	2	1	1	1	1	
1	Kilometer 21 to kilometer 45	24	8	2	1				
5	Caguas to Rio Grande Loiza	3	1						
1	Kilometer 45 to Cayey	16	5	1	1	1			
2	Catano to Vega Alta	27	9	1	1				
10	Reyes Catolicos to Corozal	17	6	1					
9	Bayamon to Rio Plata	14	4	1					
5	Rio Grande Loiza to kilometer 21	18	6	1	1				
5	Kilometer 21 to Humacao Playa	18	6	1	1				
6	Arecibo to Utuado	32	11	2	1				
6	Utuado to Tallones	13	5	1	1				
7	Rio Piedras to Mameyes	32	10	2	1				
9	Comerio northward	4	2	1					
11	Manati to Ciales and Morovis Branch.	19	6	1	1				
7	Mameyes to Naguabo	11	5	2					
7	Yabucoa to Maunabo	6		1					
	Total	275	91	20	10	2	2	1	

The auxiliary force employed for the different labors in the district during the year may be estimated at 216 per day, upon the basis of 300 working days in the year, and \$0.45 wages to each man per day.

The average length in charge of each employee is as follows:

	Kilometers.
For 1 sobrestante.....	27.50
For 1 capataz.....	15.80
For 1 caminero.....	3.00
For 1 auxiliary.....	1.274

The average expenditure during the fiscal year in the district has been \$391.26 for 1 kilometer of road.

The composition of the average prices obtained is shown in detail in the following table, classified by items and sections:

TABLE NO. 2.—Average prices obtained per kilometer for each item in the different sections of the district of San Juan during the fiscal year 1903-4.

Road No.	Section.	Perma- nent force.	Auxiliary force.	Rent of houses.	Repairs to road houses.	Repairs to bridges and culverts.	Broken stone.
1	Kilometer 0 to kilometer 21.....	\$157.143	\$124.134	\$2.286	\$33.821	\$3.284	\$230.619
1	Kilometer 21 to kilometer 45.....	147.500	152.424	1.875	8.501	69.181	210.000
1	Kilometer 45 to Cayey.....	152.528	79.916	3.000	.....	.....	118.750
2	Cataño to Vega Alta.....	110.000	12.843	4.000	14.369	.....	28.519
9	Bayamon to Rio Plata.....	27.273	41.014	2.657	.....	.....	.....
5	Caguas to Humacao Playa.....	144.615	94.910	1.841	3.929	6.552	101.026
6	Arecibo to Utuado.....	133.125	105.830	.....	.....	20.188	5.363
6	Utuado to Tallones.....	189.231	295.801	2.769	.....	.....	28.269
7	Rio Piedras to Mameyes.....	125.625	81.884	7.656	.258	15.931	70.750
7	Mameyes to Naguabo.....	127.417	73.653	4.455	.....	3.659	.....
7	Yabucoa to Maunabo.....	29.933	87.258	9.333	.....	.....	.....
9	Comerio northward.....	210.000	23.725	12.000	.....	.....	37.500
10	Reyes Catolicos to Corozal.....	132.353	138.235	15.529	.....	4.024	162.647
11	Manati to Ciales to Morovis branch	131.953	48.037	.....	.....	.....	73.158
	General average, by items...	131.488	105.892	3.839	5.317	11.803	85.728

Road No.	Section.	Steam rollers.	Carts and ox teams.	Other materials.	Stamps.	Total aver- ages, by sections.
1	Kilometer 0 to kilometer 21.....	\$63.118	\$41.262	\$1.676	\$0.095	\$657.438
1	Kilometer 21 to kilometer 45.....	34.059	26.594	1.270	.208	651.612
1	Kilometer 45 to Cayey.....	23.361	16.675	1.269	.187	395.686
2	Cataño to Vega Alta.....	27.517	11.421	1.761	.....	300.431
9	Bayamon to Rio Plata.....	.....	8.706	.....	.....	79.650
5	Caguas to Humacao Playa.....	6.418	23.905	1.168	.026	384.390
6	Arecibo to Utuado.....	53.092	7.525	1.291	.125	326.538
6	Utuado to Tallones.....	.....	225.954	12.505	.231	754.760
7	Rio Piedras to Mameyes.....	13.085	3.085	2.285	.219	321.778
7	Mameyes to Naguabo.....	.....	10.909	1.318	.273	221.684
7	Yabucoa to Maunabo.....	.....	10.500	.334	.....	137.358
9	Comerio northward.....	.....	.675	1.745	.375	286.020
10	Reyes Catolicos to Corozal.....	.....	3.412	.....	.....	456.200
11	Manati to Ciales to Morovis branch	.....	3.053	5.655	.053	261.909
	General average, by items...	20.442	24.393	2.248	.111	391.261

The total length of road repaired amounts to 26.997 meters, in which work there has been used 15,226 cubic meters of crushed stone out of the 18,896 cubic meters purchased and delivered along the different sections of road in the district.

The average expenditure incurred in the employment of 1 cubic meter of broken stone has been \$2.509, or \$1.714 for material and \$0.795 for labor.

The 18,896 cubic meters delivered along the roads of the San Juan district have been distributed as follows:

TABLE NO. 3.—Amount of broken stone delivered in the district of San Juan during the year 1903-4.

Road No.	Section.	Broken stone.			Total broken stone.
		From previous year.	Purchased by contract.	By day labor.	
		<i>Cub. meters.</i>	<i>Cub. meters.</i>	<i>Cub. meters.</i>	<i>Cub. meters.</i>
1	San Juan to kilometer 21.....	750	2,650	.....	3,400
1	From kilometer 21 to kilometer 45.....	.....	3,000	.....	3,000
1	From kilometer 45 to Cayey.....	.....	1,000	.....	1,000
2	Cataño toward Vega Alta.....	500	500	.....	1,000
5	Caguas to Rio Grande Loiza.....	.....	900	.....	900
5	Rio Grande Loiza to kilometer 21.....	.....	1,000	.....	1,000
5	Kilometer 21 to Humacao Playa.....	.....	300	225	525
6	Arecibo to Utuado.....	1,878	143	.....	2,021
6	Utuado to Tallones.....	1,780	250	.....	2,030
7	Rio Piedras to Mameyes.....	.....	1,400	.....	1,400
7	Mameyes to Fajardo.....	.....	.....	.....	.....
9	Bayamon to Rio Plata.....	.....	.....	.....	.....
9	Comerio northward.....	.....	100	.....	100
10	Reyes Catolicos to Corozal.....	.....	1,520	.....	1,520
11	Manati to Ciales.....	.....	1,000	.....	1,000
	Total.....	4,908	13,763	225	18,996

The remaining balance of 3,670 cubic meters from the stone purchased and the amount used is distributed along the roads as follows:

TABLE NO. 4.—Quantities of stone on hand along the different roads in the district on June 30, 1904.

Road No.	Section.	Quantity on hand.
		<i>Cub. meters.</i>
1	San Juan to kilometer 21.....	1,050
7	Rio Piedras to Mameyes.....	400
9	Comerio northward.....	100
10	Reyes Catolicos to Corozal.....	1,320
11	Manati to Ciales.....	800
	Total.....	3,670

The stone purchased by contract has been divided into 19 lots, as shown in Table No. 5.

TABLE NO. 5.—Broken stone purchased by contract during fiscal year 1903-4.

Lot No.	Contractor.	Stone (cubic meters).	Price per cubic meter.	Total cost.	Road No.	Section.
1	Roque Paniagua.....	1,600	\$1.78	\$2,848.00	1	1
2	.....do.....	3,000	1.68	5,040.00	1	2
3	.....do.....	1,000	1.90	1,900.00	1	3
4	José Cuesta.....	500	1.54	770.00	2	1
5	Juan Perez.....	900	1.85	1,665.00	5	1
6	Raul Marix.....	1,000	1.69	1,690.00	5	2
7	Julio B. Janer.....	300	1.95	585.00	5	3
8	Serafin Soto.....	1,000	1.56	1,560.00	7	1
9	.....do.....	400	1.76	704.00	7	1
10	José Cuesta.....	200	1.65	330.00	10	1
11	Raul Marix.....	1,000	1.39	1,390.00	11	1
12	Conrado Palau.....	100	1.50	150.00	9	2
13	Marix & Co.....	143	1.20	171.60	6	1
14	Isidoro Loueil.....	250	1.47	367.50	6	2
15	Inocencio Sanchez.....	500	2.00	1,000.00	10	1
16	.....do.....	540	1.75	945.00	10	1
17	.....do.....	280	1.75	490.00	10	1
18	J. Balado.....	525	1.90	997.50	1	1
19	José Rosado.....	525	1.90	997.50	1	1
	Total.....	13,763	a 1.714	23,601.10		

a Average.

The work done with steam rollers Nos. 1 and 4, belonging to the bureau, and average cost obtained, is given in the following table:

TABLE NO. 6.—*Statement of work done and results obtained with the two steam rollers Nos. 1 and 4 during fiscal year 1903-4.*

	Roller No. 1.	Roller No. 4.	Total.
Work done:			
Length remetaled.....linear meters.....	5,504	6,143	11,647
Surface rolled.....square meters.....	29,722	32,572	62,295
Average width remetaled.....linear meters.....	5.4	5.3	-----
Average thickness.....do.....	0.112	0.121	-----
Time employed.....days.....	97	98	195
Materials:			
Broken stone used.....cubic meters.....	3,350	3,956	7,306
Coal.....tons.....	24	17.60	41.6
Wood.....cubic meters.....	4	45.45	49.45
Expenses:			
Personal.....	\$329.80	\$338.61	\$668.41
Fuel.....	224.00	376.32	600.32
Grease, oil, oakum, etc.....	36.19	29.66	65.85
Water.....	3.25	157.30	160.55
Repairs.....	2.95	18.72	21.67
	596.19	920.61	1,516.80
AVERAGES.			
Per square meter rolled.....	\$0.020	\$0.028	\$0.024
Per linear meter of road.....	.108	.149	.130
Per cubic meter of stone used.....	.178	.232	.207

In making the history of the work accomplished during the fiscal year in the district of San Juan under my charge, reference will be made only to the most important operations carried out on each section of road, omitting for sake of brevity the general routine work in connection with the service of maintenance, such as road cleaning, repairs of ditches, sidewalks, etc., which has been attended to and executed in the most practical manner.

ROAD NO. 1.—SECTION 1, FROM SAN JUAN TO KILOMETER 21.

[Length, 21 kilometers].

In my previous reports for last fiscal year I dwelt upon the importance of this section of road, which bears the heaviest part of the traffic because of its proximity to the capital of the island, it being the only outlet leading to a great number of adjoining towns, and consequently the forced passage for all vehicles, public as well as private, entering and leaving the city.

It is therefore obvious that this section of road demands special attention, requiring heavy expenditures, for repairs must be made constantly in order to keep it in fair condition for traffic.

During the past fiscal year the road surface was repaired in a length of 3,440 linear meters, of a width of 5.50 meters and an average thickness of 0.124 meter between kilometers 2 and 3 and from 10 to 21. There have been used in these repairs 2,350 cubic meters of broken stone, at the cost of \$2.58 per cubic meter, of which \$1.78 represents the cost of the material and 80 cents for labor, including steam roller.

Out of the 2,350 cubic meters of broken stone used, 750 cubic meters belonged to last year's appropriation, and the balance of 1,600 cubic meters was purchased by contract this year. (Lot No. 1, Table No. 5.) An additional amount of 1,050 was purchased lately, to be used during the early part of the coming year. (Lots Nos. 18 and 19, Table No. 5.)

The culvert at kilometer 2.330, which has been for some time in a ruinous condition, was reconstructed, enlarging its span and improving the condition of the culvert throughout, at a cost of \$61.31.

Extensive repairs were made to caminero houses Nos. 5, 6, and 7, located at kilometers 13.600, 16.752, and 19.165, respectively. This work was carried out by contract for the amount of \$710.

The following works are recommended in this section of road during the coming year:

Broken stone.—Two thousand one hundred cubic meters will be needed for patch-

ing and remetaling, to be employed as follows: Four hundred cubic meters between kilometers 0 and 12 and 1,700 cubic meters between kilometers 12 and 21.

Bridges and culverts.—Painting of the iron material of the San Antonio Bridge, at kilometer 3.700; small repairs to "Los Frailes" Bridge, at kilometer 18.900; and to culverts at kilometers 11.655, 17.970, 19.659, and 19.732. Also construction of 1 concrete pipe at kilometer 19.900.

ROAD No. 1.—SECTION 2, FROM KILOMETER 22 TO KILOMETER 45.

[Total length, 24 kilometers.]

The most important works executed in this section of road have been the following: A length of 4,621 linear meters has been remetaled, of 5.40 meters width and average thickness of 0.124, between kilometers 27 and 36, in which work 3,000 cubic meters of broken stone were used. (Lot No. 2, Table No. 5.)

The average cost obtained has been \$2.45 per cubic meter, or \$1.68 for material and 77 cents for labor, including screening and rolling with steam roller.

Important repairs were done to bridges "Bairoa 1" and "Bairoa 2," at kilometer 33.6, which were practically falling down. The heads of all beams were reinforced and the flooring and railings reconstructed with ausubo wood. One wing wall of Bairoa Bridge was reconstructed to replace the one destroyed, and, finally, the abutments of the two bridges were underpinned. Turabo Bridge, at kilometer 38.9: Two decayed beams were changed for new ones and repairs made to the railings and other small pieces of the bridge, which were in bad condition.

The total expenditure incurred in the repairs of the above bridges amounted to \$1,250.

Road house No. 1.—This house, located at kilometer 26.5, was destroyed during the cyclone of 1899 to such an extent that only the four walls of the inclosure were left standing, the rest of the material having disappeared. The reconstruction of this house, which would be tantamount to a new construction, would cost \$355.

The following works are recommended for next fiscal year on this section of road:

Broken stone.—Amount needed will be 2,600 cubic meters for repairs at kilometers 24, 29, 30, 31, 32, and 43.

Bridges and culverts.—1. Caguitas Bridge, kilometer 35.1: This bridge has demanded our constant attention during the year, continuous repairs having been going on, owing to the recurrent damages which the frequent floods of the river caused to the structure. In last year's report I called attention to the unsatisfactory condition of this bridge, which, being of a temporary nature, should be reconstructed or replaced by a permanent bridge.

2. Turabo Bridge, kilometer 38.9: This bridge, although it has undergone some repairs during the year, has been only partially repaired for lack of sufficient funds. All beams should be changed for new ones, and also the flooring and railing, which is in bad condition.

3. Río Cañas Bridge, kilometer 28.160: The paving of this bridge is in bad condition and should be repaired; also the abutments, which have been undermined and need underpinning.

4. The repair of the following culverts is urgent, and should not be delayed any longer, as they are all more or less undermined and are dangerous: Kilometer 21.300, culvert of 4.50 span; kilometer 21.500, culvert of 1.60 span; kilometer 21.800, culvert of 1.85 span; kilometer 21.150, culvert of 0.70 span.

ROAD No. 1.—SECTION 3, FROM KILOMETER 45 TO CAYEY.

[Length, 16 kilometers.]

The amount of stone used during the year on this section of road has been 1,000 cubic meters, designated as lot No. 3 in Table No. 5. This stone was almost totally used in patching and repairing small stretches on this section, covering a length of about $2\frac{1}{2}$ kilometers, at a cost of \$2.477 per cubic meter of stone, or \$1.90 for stone and \$0.577 for labor.

The most important works to be done on this section during 1904-5 are the following:

Patching and remetaling at kilometers 45 to 53, which will require 1,000 cubic meters of broken stone; painting of the iron material of bridges "Beatriz," "Mercedes," and "La Plata," located at kilometers 54, 56, and 57, respectively; repair of caminero houses Nos. 15, 16, and 17.

ROAD No. 2.—CATAÑO TOWARD VEGA ALTA.

[Length, 27 kilometers.]

Three kilometers of new road has been added to this section during the year, which was constructed during August and November of 1903, with an allotment of \$5,000 granted by the governor from the "trust fund."

With funds from the regular budget a piece of road 1,660 meters long, 5 meters wide, and an average thickness of macadam of 0.12 meter was repaired, using therefor 1,000 cubic meters of broken stone, of which 500 meters belonged to last year's purchase and the other 500 from amounts contracted during the present year. (Lot No. 4, Table No. 5, in this report.)

The cost of this work has been at the rate of \$2.367 per cubic meter of stone used, \$1.54 being the corresponding value of the material and \$0.827 for labor.

Road houses Nos. 1 and 2 were repaired, at an expenditure of \$556.

I would recommend the following work during next year on this section of road:

Broken stone.—One thousand five hundred cubic meters of broken stone will be needed for patching and remetaling different portions of the road.

Bridges and culverts.—Repairs of 2 wooden bridges located at kilometer 3.

Painting of the iron material of the bridge across the Bayamon River.

The spanning of the river Plata by an iron bridge is a pressing necessity, more felt every day. This bridge should be erected at about 1 kilometer southward of the present ford, and the material of the old bridge, "Reyes Catolicos," could be used advantageously in the new structure.

Road houses.—Houses Nos. 3, 4, and 5 need repairs.

ROAD No. 5.—CAGUAS TO HUMACAO PLAYA.

[Length, 39 kilometers.]

The amount of broken stone used on this section of road has been, during the year, 2,425 cubic meters, of which 2,200 were purchased by contract (lots Nos. 5, 6, and 7 in Table 5), the balance of 225 cubic meters being obtained by day labor.

The stone was distributed as follows: From kilometer 0 to 3, 200 cubic meters; from kilometers 5 to 8, 1,000 cubic meters; from kilometers 22 to 23, 525 cubic meters.

The total length repaired amounts to 3,897 linear meters, of a width of 5 meters and an average thickness of macadam of 0.118, at the rate of \$2.56 per cubic meter, or \$1.717 for the value of the stone and \$0.843 for labor, including spreading, screening, and rolling.

On May 26, 1903, a contract was entered into with D. M. Palmieri for the repair of 34 culverts along this road. The work contracted consisted in the construction of connecting walls in foundations and paving in 33 culverts; also the reconstruction of a culvert of 2.50 meters span which had been destroyed some time past.

The work commenced in June, 1903, and was completed in September of the same year. The sum appropriated for this work amounted to \$7,000, the final liquidation of the contract showing an expenditure of \$6,357.32.

RECOMMENDATIONS REGARDING THIS ROAD.

Broken stone.—I would recommend that 4,000 cubic meters of broken stone be purchased for repairs at kilometers 3, 5, 12, 15, 16, 17 to 21 and 33 to 39.

Bridges.—In my previous report I said the following in connection with bridges and culverts:

"There are on this road three river crossings which should be spanned by bridges without further delay: The River Grande of Loiza, at kilometer 3; Quebrada Maney, at kilometer 10.2, and the Río Valenciano, at kilometer 14.1.

"As a permanent structure across the River Grande of Loiza and River Valenciano would be expensive enterprises, I would recommend the construction of two submergible wooden bridges, which would save for some time to come actual inconvenience caused to traffic by the lack of bridges across these streams.

"With regard to Quebrada Maney, I would suggest the construction of a bridge 10 meters span, of native timber upon masonry abutments."

The construction of these bridges being more and more urgent every day, I insist upon recommending that the matter be carefully considered in order that the above works be undertaken at the earliest possible date.

ROAD No. 6.—SECTION FROM ARECIBO TO UTUADO.

[Length, 32 kilometers.]

The following work has been executed on this road:

Remetaling.—From the time of the military government there had been placed along this road, between kilometers 26 and 31, about 1,878 cubic meters of broken stone, which, added to 143 cubic meters purchased during the present year (lot No. 13, Table No. 5), aggregated 2,021 cubic meters, representing the amount used on this section of road during the ending year.

The total length repaired has been 4,090 linear meters of road, of a width of 5 meters and an average thickness of 0.10 meter.

This work has been accomplished at an average cost of \$2.19 per cubic meter of stone used, or \$1.20 for the value of the material and \$0.99 for labor.

Bridges.—The flooring of 8 bridges were repaired, between kilometers 27 and 30, at a cost of \$646.03.

There will be needed for this section during the coming year 1,500 cubic meters of broken stone to be used in patching and remetaling different portions of the road.

I would recommend the construction of a new bridge across the Rio Grande of Arecibo, at the entrance of the town of Utuado, where a bridge 42 meters span was erected during the Spanish government. This bridge was carried away by the floods during the cyclone of 1899.

ROAD No. 6.—SECTION FROM UTUADO TO TALLONES.

[Length, 13 kilometers.]

In my previous report the conditions of this section of road were explained, stating that in the first 8 kilometers south of Utuado there still existed some unfinished portions, the construction of which was at that time under way by day labor.

During the ending year these gaps have been filled with the completion of said unfinished portions, with the exception of bridges.

The stone used amounted to 2,030 cubic meters, covering a length of 3,720 linear meters of road.

The total expenditure incurred in the construction of the unfinished portions and in the maintenance of the part already built amounted to \$9,811.88.

My only recommendation for this road will be the construction of bridges across Quebrada Arena and Pellejas River.

ROAD No. 7.—SECTION FROM RIO PIEDRAS TO MAMEYES.

[Length, 32 kilometers.]

One thousand four hundred cubic meters of broken stone were delivered by contract along this section of road during the year. (Lots Nos. 8 and 9, Table No. 5, of this report.) Out of this amount 1,000 cubic meters were used between kilometers 2 and 11, the balance of 400 being destined for kilometers 22 and 26.

The length of road remetaled amounts to 2,269 linear meters, of a width of 4.50 and an average thickness of 0.097 meter.

In these repairs we used the steam roller in a length of 1,353 linear meters and ox rollers in the remaining 916 meters.

This work was done at an expenditure of \$2.26 per cubic meter, including labor and material and \$0.70 for labor only.

Extensive repairs were done to caminero houses Nos. 1, 2, 3, 4, and 5, by day-labor, at a total cost of \$600.

The most important works for next fiscal year will be—

Broken stone.—One thousand seven hundred cubic meters are need for repairs at kilometers 1 and 3 and from kilometer 8 to 21.

Bridges and culverts.—Much should be done in this line on this section of road, and I would recommend the following:

1. The bridge 9.80 meters span at kilometer 18.249 should be protected from constant undermining, which will end in serious damage if neglected.

2. Repair of wooden flooring of the 8 following culverts: At kilometers 9.310, 11.850, 19.670, 20.120, 20.890, 22.857, 23.586, and 23.910.

3. Construction of connecting walls in foundations and paving of the 5 following culverts: At kilometers 28.185, 29.175, 29.576, 29.738, and 32.400.

4. Culvert of 6 meters span at kilometer 12.990 across Quebrada Candelaria. This culvert is entirely destroyed and its reconstruction is recommended.

5. Herrera Bridge, 7.3 meters span, at kilometer 22.625. This bridge could be reconstructed, using its present iron material.

6. Scraping and painting the iron material of 13 bridges, with an aggregate square surface of 2,700 square meters.

7. The Canovanas River is threatens to cut off the road at kilometer 18.7; it is therefore urgent to construct a wall with riprap foundation to protect the embankment of the road during high floods.

There are three important streams lacking bridges on this section of road, as follows: Rio Grande de Loiza, in Carolina; Rio Grande, in Rio Grande, and Rio Espiritu Santo.

We are now running a ferry in Rio Grande de Loiza at a yearly expense of \$700.

According to information obtained, from September 1 to May 15, 1904, the average number of pedestrians and riders who cross the river daily amounts to 880, and about 15 coaches and 11 carts—a traffic which, in my opinion, justifies the erection of a bridge in that place.

ROAD No. 7.—SECTION FROM MAMEYES TO NAGUABO PLAYA.

[Total length, 37 kilometers, of which there are only 11 kilometers under maintenance.]

This section of road was turned over to maintenance in July, 1903.

The work accomplished on this road during the year has been done at a small cost, owing to the aid given by landowners in the vicinity of the works, who furnished carts for hauling gravel and other material free of charge.

The conduct observed by Messrs. Veve, Sandoz, Massó, and others deserves commendation, and should be imitated by many other estate holders of the island, who ought to cooperate in like manner to the improvement of our roads, from which they derive direct benefits by promoting their own interests through facilities afforded to transportation.

The total amount expended on this work has been \$2,438.52.

ROAD No. 9.—COMERIO NORTHWARD.

[Length, 4 kilometers.]

This section of road, actually in charge of 1 capataz and 2 camineros, is in regular condition of maintenance.

There has been purchased 100 cubic meters of broken stone to be used on this section during the coming year. (Lot No. 12, Table No. 5.)

ROAD No. 9.—BAYAMON TO RIO LA PLATA.

[Length, 14.3 kilometers.]

This section of road, recently constructed, was turned over to maintenance in April, 1904.

Kilometer No. 1, starting from Comerio street, in Bayamon, was constructed by day labor and paid with funds for maintenance.

The total amount expended has been \$1,139.

ROAD No. 10.—REYES CATOLICOS TO COROZAL.

[Length, 17 kilometers.]

During the past year only 200 cubic meters of broken stone has been used out of the 1,520 purchased by contract, shown in Table No. 3.

This stone has been employed in repairing 2,000 square meters of road, consisting in patching up holes with layers of 0.10 meter thickness, at an average price of \$2.48 per cubic meter, or \$1.65 for material and \$0.83 for labor.

Recommendations.—Purchase of 500 cubic meters of broken stone to be used in repairing the metal of the road.

Masonry works.—Old bridge across Rio Lajas at kilometer 2.2. The wing wall on the east side of the abutment on the Toa-Alta side is out of level and separated from the general body of the abutment. It has been necessary to prop this wall with solid pieces of timber to prevent its falling, which undoubtedly would cause material damage to the bridge. The repair of this wall I deem very urgent, and \$600 will put it in a safe condition.

ROAD No. 11.—SECTION FROM MANATI TO CIALES AND MOROVIS BRANCH.

[Length in maintenance, 19 kilometers.]

During the ending year 1,000 cubic meters of broken stone, purchased by contract, were delivered along this section of road. (Lot 11, Table No. 5.)

Only 200 cubic meters were used in patching, at a cost of \$2.17 per cubic meter, \$1.39 for stone and \$0.78 for labor.

Recommendations.—This section should be supplied with 500 cubic meters of broken stone for repairs to different portions of the road.

Bridges.—There are two important river crossings which lack spanning by proper bridges—Rio Manati, at Mata de Platanos, and Rio Cialitos.

At Mata de Platanos the erection of a bridge 80 meter span is now under way by contract.

At Cialitos the two abutments were built during the military government, only lacking the iron material for a bridge 34 meters span.

Summary of expenditures incurred in the district of San Juan during fiscal year 1903-4.

	Amounts expended.	Average expenditure per kilometer.
Permanent force.....	\$36, 198. 75	\$131. 488
Auxiliary force.....	29, 151. 97	105. 892
Rent of houses.....	1, 056. 80	3. 839
Repairs to road houses.....	1, 463. 73	5. 317
Repairs to bridges and culverts.....	3, 249. 29	11. 803
Broken stone.....	23, 601. 10	85. 728
Steam rollers.....	5, 627. 63	20. 442
Carts and ox teams.....	6, 715. 34	24. 393
Sundries.....	619. 03	2. 248
Postage stamps.....	30. 50	. 111
Total.....	107, 714. 14	391. 261

NOTE.—The salaries for the regular employees of the steam rollers are not included in the amounts given for our permanent force, but in the item for steam rollers.

With regard to extraordinary services independent of the work of maintenance, I have made during the year several reports and investigations concerning roads and other matters, among which was the investigation made at Vieques by order of Secretary Hartzell relating to a controversy between the municipality and a citizen of that town as to the proper alignment of a house in one of their public streets.

Respectfully submitted.

F. MONTILLA, *District Engineer.*

Mr. P. F. FERNANDEZ,

Assistant Superintendent of Public Works, San Juan, P. R.

APPENDIX C.

REPORT OF THE PONCE DISTRICT ENGINEER.

BUREAU OF PUBLIC WORKS,
Ponce, P. R., July 1, 1904.

SIR: Pursuant to your instructions of May 17, 1904, I have the honor to submit herewith report of operations of the Ponce district for the fiscal year ending June 30, 1904.

The principal work during this period has consisted in the maintenance of finished roads, completion of submergible bridge over Portugues River near Ponce, repairs to bridges over Jaguey River and at kilometer 32 of road No. 4, tests of Guayma River bridge, and the organization of the repairs on road No. 3, Ponce to Guayama.

ORGANIZATION OF PERSONNEL.

Upon my qualification as district engineer of the district of Ponce, September 11, 1903, I found the organization of the work of maintenance needing a few changes in details, which were promptly executed with the best results, as the work has been conducted on a more systematic, economical, and efficient basis.

The district of Ponce comprises a total of 198 kilometers; 37 kilometers of road No. 3, Ponce to Guayama, under repairs, and the balance, 161 kilometers, under maintenance, as follows:

Road No.	Section.	Under maintenance.
		<i>Kilometers.</i>
1	Cayey to Ponce Playa	74
4	Cayey to Arroyo	34
6	Ponce to kilometer 34	34
3	Ponce to Guayama (56 kilometers)	19
	Total.....	161

These are subdivided into sections under competent overseers with permanent forces of capataces (foremen) and camineros (sectionmen), excepting the section of second-class road, Ponce to Guayama, which is under the direct charge of 2 capataces and 8 camineros.

These permanent forces have been assisted by a limited number of auxiliary day laborers, carts, ox teams, and two steam rollers, as follows:

TABLE NO. 1.—*Sections under maintenance, district of Ponce, showing permanent forces employed from July 1, 1903, to June 30, 1904.*

Road No.	Section.	Length.	Camineros (section-men).	Capataces (foremen).	Over-seers.	Engine drivers.	Watchmen on steam rollers.	Watchman at store-house.	Clerk.	District engineer.	
		<i>Kms.</i>									
1	Kilometers 60 to 70...	10	3	1	1	}	}	1	1	1	
4	Kilometers 0 to 12....	12	4	1							
1	Kilometers 70 to 90...	20	7	1	1	1	1				
1	Kilometers 90 to 110...	20	7	1	1						
1	Kilometers 110 to 130...	20	7	1	1	1	1				
1	Kilometers 130 to 134...	4	2	1	1						
6	Kilometers 0 to 21....	21	7	1	1	1	1				
6	Kilometers 21 to 34....	13	5	1	1						
4	Kilometers 12 to 34....	22	7	1	1	}					
3	Ponce to Guayama ..	19	8	2							
	Total.....	161	57	10	7	2	2	1	1	1	

The total paid to the above-named force for the fiscal year ending June 30, 1904, amounts to \$28,620, subdivided into the two following forces:

INSPECTION AND OFFICE FORCES.

10 capataces, at \$360 per annum	\$3, 600
7 overseers, at \$900 per annum	6, 300
3 watchmen, at \$360 per annum	1, 080
1 clerk, at \$720 per annum	720
1 district engineer, at \$1,800 per annum	1, 800
Total	13, 500

PERMANENT LABOR FORCES.

57 camineros at \$240 per annum	\$13, 680
2 engine drivers at \$720 per annum	1, 440
Total	15, 120

From the above may be deduced the following averages: One overseer, 23 kilometers, at a cost of \$900, or \$39.13 per kilometer; 1 capataz, 16.10 kilometers, at a cost of \$360, or \$22.36 per kilometer; 1 caminero, 2.824 kilometers, at a cost of \$240, or \$84.97 per kilometer, or an average expense of \$146.46 per kilometer, which when including watchmen, engine drivers, clerk, and district engineer increases to \$177.76 per kilometer.

AUXILIARY FORCES.

The auxiliary day laborers have been employed as conditions required; some camineros have maintained their section satisfactorily for months without help, while others have necessitated from 10 to 15 men during the greater part of the year. This decided difference is principally due to the copious and frequent landslides on roads running through mountainous districts, washouts near streams, and when repairs to macadam or other work of importance were in progress.

This force has required a grand total of \$15,665.57, or an average of \$97.30 per kilometer of road under maintenance.

BROKEN STONE.

A total of 10,090 cubic meters of broken stone and gravel has been acquired during this period, as follows:

TABLE NO. 2.—*Broken stone contracted for maintenance and delivered during the fiscal year ending June 30, 1904.*

Road No.	Section.	Contracted.	Delivered.	Price per cubic meter.	Total cost.	Name of contractor.	Lot No. in contract.	Remarks.
		<i>Cu. m.</i>	<i>Cu. m.</i>					
1	Kilometers 71 to 83.....	600	600	\$1.68	\$1,008	Roque Paniagua...	12	
1	Kilometers 86 to 90.....	800	800	1.68	1,344	.....do.....	13	
1	Kilometers 100 to 110....	1,000	1,000	1.58	1,580	Francisco Davila...	14	
1	Kilometers 111 to 112....	600	600	1.70	1,020	Roque Paniagua...	15	
1	Kilometers 124 to 129...	1,200	700	1.39	973	Carlos Clausells....	16	Unable to finish contract.
4	Kilometers 1 to 10.....	800	500	1.92	960	Francisco Fernandez.	17	Part of contract annulled by mutual consent.
4	Kilometers 13 to 20.....	600	300	1.73	519	.....do.....	18	
6	Kilometers 1 to 8.....	600	600	1.50	900	Esteban Ortiz.....	19	
6	Kilometers 22 to 26.....	800	800	1.12	896	Carlos Clausells....	20	
1	Kilometers 128 to 129...	100	100	1.50	150	Manuel Leon.....		Portion of lot 16 to supply part of the deficiency.
	Total.....	7,100	6,000	.....	9,350			

Average cost per cubic meter of broken stone delivered by contract, \$1.558.

Owing to the insufficient amount of broken stone contracted for, it became necessary at times to acquire extra stone and gravel in small lots by administration or day labor, and at places not covered by contracts, in order to supply the most urgent needs. There was a total of 4,090 cubic meters thus acquired, as follows:

TABLE NO. 3.—*Broken stone and gravel acquired by administration or day labor during the fiscal year ending June 30, 1904, and amounts left over from previous year.*

Road No.	Section.	Stone acquired by day labor.			Stone from previous year.		Gravel acquired by day labor.		
		Cubic meters.	Cost per cubic meter.	Total cost.	Cubic meters.	Cost per cubic meter.	Cubic meters.	Cost per cubic meter.	Total cost.
1	Kilometers 60 to 70.....	109	\$0.94	\$102.46	197	\$1.90	.....	.....	.....
4	Kilometers 1 to 12.....	45	.96	43.20	.....	.....	.....	.....	.....
1	Kilometers 70 to 90.....	157	.87	136.59	.....	.....	.....	.....	.....
1	Kilometers 90 to 110....	77	.82	63.07	48	1.65	1,425	\$0.24	\$342.00
1	Kilometers 110 to 130....	842	.98	825.16	187	1.60	.....	.....	.....
6	Kilometers 130 to 134....	127	.99	125.73	579	2.00	182	.56	101.92
4	Kilometers 1 to 21.....	145	.93	134.85	.....	.....	.....	.....	.....
6	Kilometers 12 to 34.....	.....	.....	.....	.....	.....	981	.32	313.92
3	Ponce to Guayama.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total.....	1,502	.....	1,431.06	1,011	.....	2,588	.....	757.84

Average cost of stone per cubic meter by day labor..... \$0.953

Average cost per cubic meter of stone from previous year..... 1.890

Average cost per cubic meter of gravel by day labor..... .292

NOTE.—The stone acquired by day labor was taken directly from the slopes of road, in places where required, needing very short or no hauls; hence the low average price.

REPAIRS TO MACADAM.

A grand total of 11,101 cubic meters of broken stone and gravel has been used in repairs to macadam. These repairs may be classified into two separate groups; that is, repairs by continuous layers and repairs by separate patches, as follows:

TABLE NO. 4.—*Broken stone used in repairs, by continuous layers, and cost of using same, including spreading, sprinkling, rolling, and binder.*

Road No.	Section.	Work done.			Cost.				
		Cubic meters of broken stone used.	Linear meters covered.	Square meters covered.	Per cubic meter of stone used.	Per linear meter.	Per square meter.	Total.	Per cubic meter, including stone.
1	Kilometers 60 to 70	697	1,293	6,465	\$0.71	\$0.38	\$0.08	\$494.87	\$2.49
4	Kilometers 1 to 12								
1	Kilometers 70 to 90	1,249	2,450	12,250	.86	.44	.09	1,074.14	2.52
1	Kilometers 90 to 110	759	1,449	7,245	.85	.45	.09	645.15	2.33
1	Kilometers 110 to 130	1,498	2,558	12,790	.68	.40	.08	1,018.64	2.18
1	Kilometers 130 to 134	840	1,640	8,200	.72	.37	.07	604.80	2.72
6	Kilometers 1 to 21								
4	Kilometers 12 to 34	631	1,192	5,960	.84	.44	.09	530.04	2.44
6	Kilometers 21 to 34	945	1,739	8,695	.80	.44	.09	756.00	1.89
	Total	6,619	12,321	61,605				5,123.64	

Average price per cubic meter.....	\$0.774
Average price per linear meter.....	.415
Average price per square meter.....	.083
Average price per cubic meter, including stone.....	2.264

TABLE NO. 5.—*Broken stone and gravel used in repairs, by separate patches, and cost of using same, including spreading, sprinkling, rolling, and binder.*

Road No.	Section.	Broken stone.					Gravel.				
		Work done.		Cost.			Work done.		Cost.		
		Cubic meters used.	Square meters covered.	Per cubic meter.	Per square meter.	Total.	Cubic meters used.	Square meters covered.	Per cubic meter.	Per square meter.	Total.
1	Kilometers 60 to 70	109	1,312	\$0.97	\$0.08	\$105.73					
4	Kilometers 1 to 12										
1	Kilometers 70 to 90	196	1,845	1.20	.13	235.20	2.86				
1	Kilometers 90 to 110	398	2,975	1.07	.14	425.86	2.55				
1	Kilometers 110 to 130	27	250	1.16	.13	31.32	2.66	1,425	8,750	\$0.23	\$0.037
1	Kilometers 130 to 134	789	6,915	.95	.11	749.55	2.15				
6	Kilometers 1 to 21										
4	Kilometers 12 to 34	375	2,780	.74	.10	277.50	2.34	182	1,302	.29	.04
3	Ponce to Guayama						981	4,890	.18	.036	176.58
	Total	1,894	16,077			1,825.16	2,588	14,942			557.11

Average price per cubic meter.....	\$0.531
Average price per square meter.....	.077
Average price per cubic meter, including stone and gravel.....	1.742

From all of the above data are deduced the following general averages:

Cost of using 1 cubic meter of broken stone	\$0.676
Cost of same, including price of stone	1.887
Cost of covering 1 linear meter with broken stone.....	.415
Cost of same, including price of stone	1.057
Cost of covering 1 square meter with broken stone.....	.081
Cost of same, including price of stone .....	.226

STEAM ROLLERS.

The work of repairs to macadam has been facilitated to a marked extent by the use of two steam rollers, which have been almost continually at work—one on road No. 1, Cayey to Ponce, and the other on road No. 6, Ponce to Adjuntas. Besides the regular work of rolling the broken stone, these engines have been used to a great advantage to tear up old macadam and reroll same in order to reduce surface imperfections. This has given the most excellent results in those places where the macadam exceeds 10 centimeters in thickness, the cost being very limited for the results obtained.

The following table shows the work done by these two rollers and the cost of operating same:

TABLE No. 6.—*Work executed and results obtained by the two steam road rollers employed in the district of Ponce during the fiscal year ending June 30, 1904.*

	Roller at road No. 1.	Roller at road No. 6.	Total.
Work done:			
Length rolled (continuous layers) .....meters..	6, 636	4, 963	11, 599
Surface rolled (includes continuous layers, patches, and re-rolling old work) .....square meters..	41, 680	33, 725	75, 405
Average width (continuous layers) .....meters..	5	5	5
Average thickness .....do.....	0. 102	0. 097	0. 099
Time employed.....days.....	111	88	199
Material consumed:			
Broken stone.....cubic meters.....	3, 479	2, 574	6, 053
Coal.....tons.....	5. 59	2. 50	8. 09
Wood.....1,000 pieces.....	62. 45	59. 00	121. 45
Expenses:			
Personnel.....	\$336. 50	\$267. 25	\$603. 75
Fuel.....	271. 89	157. 88	429. 77
Grease, oil, waste, etc.....	35. 75	26. 93	62. 68
Feed water.....	114. 39	27. 50	141. 89
Repairs.....	84. 00	17. 35	101. 35
Average cost:			
Per square meter rolled.....	\$0. 020	\$0. 015	\$0. 0177
Per linear meter rolled.....	. 127	. 100	. 115
Per cubic meter of stone used.....	. 242	. 193	. 221

It is obvious from the above that the depth of macadam does not demonstrate clearly the work done by these steam rollers, which on the other hand is correctly and efficiently shown in the surface rolled.

Owing to the limited time allowed stone contractors to deliver the stone in the different sections, the scattered condition of same, due to the limited quantities allotted, and the urgency of repairs prevented steam rollers from being used to a better advantage, necessitating the employment of ox rollers in order to carry on the work.

I would here recommend that in the future contracts for stone be so arranged that the delivery be made only in those places where steam rollers are at work, and in sufficient quantities to maintain those machines continually busy. This would make steam rollers more efficient, prevent the inconvenient and very often dangerous practice of piling broken stone along the sides of roads for indefinite periods of time, and eliminate the unsatisfactory, slow, and expensive ox roller.

The cost of rolling with ox rollers has averaged \$0.52 per cubic meter and \$0.065 per square meter, a decided disadvantage which favors steam rollers, and not only is the cost to the latter's advantage, but the finished condition of the work is such as to leave no doubts as to the economy and superiority of the steam over the ox rollers.

I would here remark that the expenses in personnel charged to steam rollers only include the actual time at work, but even if the total time of this be included, bringing the average per square meter rolled by steam roller to \$0.038, there would still be a difference of \$0.027 per square meter rolled in favor of the steam rollers.

SUBMERGIBLE BRIDGE OVER PORTUGUES RIVER NEAR PONCE.

At the time of my incumbency in charge of the Ponce district the bridge proper had been finished and accepted by my predecessor, leaving the approaches yet to be terminated. This was satisfactorily done, and the bridge opened to traffic in the latter part of September, 1903.

On the night of the 21st of October, 1903, the bridge was submerged to the depth of 4 feet by an overflow of the river, from which considerable damage resulted. Three piles were undermined and three others shifted from their base, besides a considerable part of the fill on the east approach being washed away. This damage was promptly repaired and further washing by the waters prevented by the construction of stone apron under the east approach.

The total cost of bridge and maintenance expenditures to date are as follows:

Paid to contractor for bridge proper	\$2,263.00
Paid to contractor for approaches	1,525.94
Fencing approaches	232.00
Inspection	230.30
Purchase of land	100.00
Cost of stone apron	137.40
Total expenditure	4,488.64

I must not fail to mention the fact that the east approach to this bridge is threatened with destruction by the constant erosion of waters, and unless prompt action is taken not only the approach will suffer, but the bridge proper may be more or less damaged.

Suitable spur docks or a line of sheet piles should be constructed on the upstream side of this approach, in order to divert the waters and thus prevent further erosion.

The above is a general information of the most important work carried on in the district, and in order to make this more descriptive I will detail each section separately.

ROAD No. 1.—SECTION KILOMETERS 60 TO 70.

ROAD No. 4.—SECTION KILOMETERS 0 TO 12.

[Total length, 22 kilometers.]

These two sections are attended by a regular permanent force, consisting of 1 overseer, 2 capataces, and 7 camineros, assisted as well as other sections by a limited number of day laborers and carts.

One of the main expenses in the maintenance has been incurred in the cleaning of ditches, sidewalks, drains, and culverts, for which a total of \$1,940.88 has been expended.

There were 500 cubic meters of broken stone acquired by contract, 109 by day labor and 197 that were left over from previous year.

Of the total, 697 cubic meters were used in repairs to macadam by continuous layers, with which 1,293 linear meters of road were covered to an average depth of 11 centimeters, costing \$0.71 per cubic meter, or \$2.49 including cost of stone.

A surface of 1,312 square meters of repairs by patches was covered by 109 cubic meters of broken stone at an average cost of \$0.97 per cubic meter of stone used, or \$2.75 including cost of stone.

The rolling was exclusively done by ox rollers.

Other work of importance consisted in the removal of 1,569 cubic meters of landslides at an expense of \$0.13 per cubic meter, and the erection of 105 cubic meters of dry masonry parapet and retaining walls costing \$0.95 per cubic meter including material.

These sections are in a fairly good state of maintenance, but the following requirements are recommended:

Broken stone for Kilometers 7, 8, 9, 11, and 12 of road No. 4, and 62, 65, 66, and 68 of road No. 1.

Iron bridges: There are three of these that are in direct need of paint.

Culverts: Although in fair condition, a few minor repairs would be advantageous in order to prevent possible larger expenditure in the future.

Road houses: Should have light repairs and paint.

ROAD No. 1.—SECTION KILOMETERS 70 TO 90.

[Total length, 20 kilometers.]

The permanent force in this section consists of 1 overseer, 1 capataz, and 7 camineros. These have been assisted in the general maintenance and other repairs by auxiliary day laborers, carts, and one steam roller.

Besides the usual work of maintaining clean the ditches, walks, drains, etc., requiring an expenditure of \$2,009.82, the following has been executed:

A total of 1,445 cubic meters of stone has been furnished—1,400 cubic meters by contractors and 45 by day labor. Of this total, 1,249 cubic meters have been used in

repairs to macadam by continuous layers over a surface of 2,450 linear meters, of an average width of 5 meters, a depth of 10 centimeters and costing \$0.86 per cubic meter, or \$2.52 including broken stone.

In repairs by separate patches, 196 cubic meters of broken stone were used, covering 1,845 square meters, and costing \$1.20 per cubic meter, or \$2.86 including cost of stone. The above repairs were rolled by both steam and ox-rollers.

There were also 1,489 cubic meters of landslides removed at an average expense of \$0.15 per cubic meter, and 50 cubic meters of dry masonry parapet and retaining walls erected costing \$0.86 per cubic meter.

The section is in a fair state of maintenance, but a limited amount of broken stone should be acquired to repair the few minor imperfections in macadam.

The culverts and road houses should also have minor repairs carried out, and the latter painted.

ROAD No. 1.—SECTION KILOMETERS 90 TO 110.

[Total length, 20 kilometers.]

Under a permanent force, consisting of 1 overseer, 1 capataz, and 7 camineros, assisted by the usual limited force of auxiliary day laborers and carts, this section presents a very good state of maintenance.

A total of \$1,375.35, constituting one of the main charges, has been expended in the preservation of ditches, sidewalks, and drains in a clean condition.

Of a total of 1,000 cubic meters of broken stone furnished by contract and 157 by day labor, 759 cubic meters were used in repairs to macadam by continuous layers covering 1,449 linear meters of road surface of an average width of 5 meters, and at an expense of \$0.85 per cubic meter, or \$2.18 when price of broken stone is included.

There were also 398 cubic meters of broken stone used in repairs by patches which covered 2,975 square meters, and cost an average of \$1.07 for labor per cubic meter, or \$2.55 including broken stone.

Other work consisted in the erection of 155 cubic meters of small retaining walls to hold road embankment, which averaged \$0.51 per cubic meter, including material.

In the latter part of October, 1903, the overseer in charge reported floor of bridge over Jaguey River in ruinous condition. The estimated cost of repairs amounting to \$58.75 was promptly approved by the superintendent and work executed in due time.

Four of the floor girders were removed and replaced by new ones, the planking patched, and the abutments slightly repaired. A total of \$45.85 was expended, leaving a balance of \$12.90.

This section requires very little attention for the incoming year; however, a limited amount of stone should be acquired for possible repairs in Kilometers 91 to 93, 94, 96, 97, and 109; culverts may have a few minor repairs made, and road houses slight repairs and paint.

Iron bridge over Descalabrado River requires paint.

ROAD No. 1.—SECTION KILOMETERS 110 TO 130.

[Total length, 20 kilometers.]

The organization of this section consists of 1 overseer, 1 capataz, and 7 camineros all included in permanent force.

The heavy traffic and the occasional heavy floods of rivers require the constant attention of the personnel, and the incurrence of an unusual expenditure.

As in all other sections, the cleaning of ditches, sidewalks, and culverts has constituted one of the most costly items of expense, requiring a total of \$1,236.28 for its attention.

A total of 1,477 cubic meters of broken stone has been acquired in this section—1,400 cubic meters by contract, at an average cost of \$1.53 per cubic meter; 77 cubic meters by day-labor, at \$0.82 per cubic meter, besides 1,425 cubic meters of river gravel, at \$0.24 per cubic meter, and 48 cubic meters of broken stone from previous year, at \$1.65 per cubic meter.

Of these totals there have been used in repairs to macadam by continuous layers 1,498 cubic meters, covering 2,558 linear meters of road, 5 meters wide, and of an average depth of 11 centimeters, and costing \$0.68 per cubic meter of stone used, or \$2.18 including average cost of stone.

In the repairs by separate patches 27 cubic meters of broken stone and 1,425 cubic meters of gravel have been used. The former covering 250 square meters and the latter 8,750 square meters of surface, with an average expenditure of \$1.16 per cubic

meter of stone used, or \$2.03 if we include the average cost of stone and gravel. Both steam and ox rollers have been used in the above repairs.

The urgency of retaining walls to protect road against erosion has necessitated the erection of 429 linear meters of dry retaining walls, containing 483 cubic meters, at an expenditure of \$1.18 per cubic meter, including hauling of block stone.

The unusual development of what appeared to be dangerous cracks in the arches of the concrete bridge over Guayo River caused my predecessor, during the latter part of his tenancy in office, to make an official report of the matter. After submitting various propositions and projects to remedy the supposed impending danger to the bridge he decided to demolish the parapets, relieving the bridge of all possible excessive load, and to test the arch that showed the most pronounced cracks. This was satisfactorily done by the general inspector of the bureau, assisted by another competent employee and the undersigned, with the following results:

A crown area of 330 square feet was uniformly loaded to 160 pounds per square foot, resulting in a crown settlement of fifteen sixty-fourths of an inch, springing back to within five sixty-fourths of its original position when load was removed. Cornice on north spandrel pulled away one thirty-second of an inch from its abutment when loaded, but regained its normal when relieved. In order to further prove the stability of the arch some 20 men were made to trot in step and close file across the bridge. A decided vibration of four sixty-fourths of an inch on each side of the normal was noticeable, regaining its original level when at rest.

I would recommend that cement be blown into the cracks of this bridge, and that in place of the original heavy concrete parapet a light iron or bronze railing be erected.

This section of road requires the following work for the ensuing year:

Broken stone for kilometers 114, 117, 119 to 122, and 127 to 130.

Repairs to culverts at kilometers 116.200, 119.100, 121.300, 126.100, and 129.100.

Retaining walls for the protection of road embankment in the proximity of river floods.

Repairs to Guayo River bridge, minor repairs and paint to road houses, and the erection of bridges over Buacaná and Inabón rivers.

ROAD NO. 1.—SECTION PONCE TO PLAYA. ROAD NO. 6.—SECTION KILOMETERS 0 TO 21.

[Total length, 24 kilometers.]

The permanent personnel in charge of these sections consists of 1 overseer, with 1 capataz and 9 camineros.

The usual routine work of cleaning the side ditches, road, and drains has constituted one of the main charges, costing a total of \$1,600.53.

Other important work has been executed as follows:

There were 600 cubic meters of broken stone acquired by contract, 842 cubic meters by day-labor, and 187 cubic meters left over from the previous year. Of the total, 840 cubic meters were used in repairs to macadam by continuous layers, covering 1,640 linear meters of road surface, of an average width of 5 meters, a depth of 8 centimeters, and a cost of \$0.72 per cubic meter of stone used, or \$2.72 per cubic meter including cost of broken stone.

In repairs by separate patches a total of 789 cubic meters were used which covered 6,915 square meters of surface, and cost \$0.95 per cubic meter of stone used, or \$2.15 including cost of same. One of the steam rollers has done the rolling of these repairs.

The section included in road No. 6 has suffered extensively from landslides, of which 6,169 cubic meters were removed at an expense of \$0.15 per cubic meter.

There are parts of road No. 6 that are still very narrow for the requirements of the heavy traffic, and specially so were kilometers 2 and 3, where the road has been widened to 6 meters for a distance of 1,200 meters, at a cost of \$0.25 per linear meter of road. Auxiliary to this work was the construction of 905 linear meters of retaining walls containing 302 cubic meters, and costing \$1.30 per cubic meter, including cost of block stone.

I would recommend the following work for the next year:

Broken stone for kilometers 132, 133, and 134 of road No. 1, and kilometers 1, 2, 5, 10, 20, and 21 of road No. 6.

Bridges: Repairs and paint to several small iron bridges on road No. 6.

Culverts: The erection of two culverts is made necessary, one at kilometer 0.200, and another at kilometer 3.300, and the repair of some others is urgent.

Road houses: These require slight repairs and, most urgently, paint.

ROAD No. 4.—SECTION KILOMETERS 12 TO 34.

[Total length, 22 kilometers.]

This section, in direct charge of 1 overseer, with 1 capataz and 7 camineros, comprises the subsections kilometer 12 to Guayama, 16 kilometers, and Guayama to Arroyo, 6 kilometers.

Besides the regular maintenance, consisting in the cleaning of ditches, sidewalks, and culverts, etc., and costing a total of \$1,973.19, the following work has been executed:

Repairs to macadam by continuous layers, 631 cubic meters of broken stone used, covering a surface of 1,192 meters in length, with an average width of 5 meters, a depth of 10 centimeters, and costing an average of \$0.84 per cubic meter of stone used, or \$2.44 including cost of stone; rolled with ox rollers.

Repairs to macadam by separate patches, 375 cubic meters of broken stone used, 2,780 square meters of surface covered, and \$0.74 as the average cost per cubic meter of stone used, or \$2.34 including cost of stone; ox rollers used.

Of the above total of stone used, 300 cubic meters were purchased by contract, 579 were left over from previous year, and 127 acquired by day-labor.

There were also used in patching road surface 182 cubic meters of river gravel, averaging \$0.85 per cubic meter, including hauling.

Repair to bridges: Early in August, 1903, the overseer in charge reported wooden floor of iron bridge at kilometer 32 in bad condition and requiring urgent repairs. The estimated amount of \$215.20 was approved and work executed by day-labor. These repairs consisted in replacing several of the floor girders and laying a new plank floor at an actual expense of \$204.96, leaving a balance unexpended of \$10.24.

The section as a whole presents a fair condition of maintenance, but the following are urgent requirements: Broken stone for kilometers 13, 14, 16, 19, 20, and 30; paint to iron bridges at kilometers 25 and 32, respectively; repairs and paint to road houses, and minor repairs to culverts.

ROAD No. 6.—SECTION KILOMETERS 21 TO 34.

[Total length, 13 kilometers.]

The permanent force in charge of this section consists of 1 overseer, 1 capataz, and 5 camineros, assisted by a limited number of day-laborers.

The cleaning of side ditches, road surface, and walks has required an expenditure of \$749.24, constituting one of the most expensive charges.

The narrowness of this road and its many curves over dangerous precipices necessitated the widening of road fill in the narrowest parts and the erection of dry parapet walls to protect traffic.

The contractor furnished 800 cubic meters of broken stone, and a total of 145 cubic meters were acquired by day-labor.

These 945 cubic meters were used in repairs to macadam by continuous layers, covering 1,739 linear meters of road and costing an average of \$0.80 per cubic meter, or \$1.89 including price of stone. The rolling was done with steam roller.

A total of 273 linear meters of road was widened to 6 meters, at an average cost of \$0.28 per linear meter, and 626 cubic meters of dry masonry parapet walls erected, costing \$0.98 per cubic meter including the material used.

With the exception of macadam, which needs broken stone for repairs to kilometers 25 to 29, the section is in a fair condition of maintenance.

A few culverts should be lengthened in order to give more width to roadbed.

I specially recommend that the line of this road for a length of 800 meters near the town of Adjuntas be changed in order to avoid the two river fords, which at present constitute a great inconvenience to the traffic and at the same time require an extra expenditure to repair damages caused by the frequent floods of rivers.

ROAD No. 3.—PONCE TO GUAYAMA.

[Total length, 56 kilometers; under maintenance, 19 kilometers.]

After the partial repairs to this road, suspended at the beginning of this fiscal year, a permanent force consisting of 2 capataces and 8 camineros were appointed to maintain the finished portions. These were at times assisted by a very limited number of day-laborers and carts; the principal work consisted in the cleaning of ditches,

repairs to macadam, the filling of mud holes, refilling road embankment, and opening drains in the unfinished portions.

A total of 981 cubic meters of river gravel were used in repairs to macadam and in filling mud holes, covering a surface of 4,890 square meters, and costing \$0.50 per cubic meter, including hauling of gravel.

A total length of 4,397 linear meters of old road was ditched and reembanked at an expense of \$0.24 per linear meter.

The finished portions have been maintained in fair condition, and the whole road always transitable.

REPAIRS UNDER APPROPRIATION.

Under an appropriation of \$20,000 from the trust fund repairs to the above road were begun on the 25th of April, 1904, at kilometers 24 and 42, respectively, advancing without any serious interruption and bidding to become quite efficient.

These repairs consist mainly in the opening of drains, raising road grade, spreading gravel for macadam, and erecting small wooden culverts. The work of grading is accomplished generally by using the material excavated from the side ditches, and, where this is not sufficient, from the sides of road; thus very little transportation of material is necessary.

The introduction of two road scrapers on these repairs has facilitated the work of excavation and fills in certain localities where the soil is adaptable for their employ, but they have failed in general to give satisfactory results. Their failure is due principally to the hardness of soil, which generally is filled with layers of old gravel macadam, river boulders, stumps of old trees, and other obstructions that continually endanger the stability of the machines and cause the waste of valuable time on the part of these while waiting for obstructions to be removed by the aid of picks, or in changing from one piece of road to another while these are being removed.

As the present appropriation will not suffice to finish all the repairs necessary to this road, I would recommend that another and sufficient amount be appropriated for their termination, and that all the finished parts be placed under maintenance in order to prevent their probable deterioration.

Although the construction of bridges would be most advantageous, I would not recommend these for the present, nor while other needed improvements to road proper, that are more urgent, remain unattended for lack of funds.

The following table shows the amount of work done on the repairs of this road and the cost of same:

TABLE NO. 7.—Repairs to road No. 3, Ponce to Guayama, from April 25 to June 30, 1904, including cost of same.

Class of work.	Work done.		Cost.		
	Linear meters.	Cubic meters.	Per linear meter.	Per cubic meter.	Total.
Fills, embankments, and side ditches.....	5,139	15,924	\$0.359	\$0.116	\$1,845.84
Lateral drains.....	807	405	.175	.348	141.25
Macadam, including gravel and binder.....	3,190	2,229	.815	1.12	2,600.45
Rolling.....	500		.095		47.50
Construction and repair of wooden culverts.....					136.70
Transportation and repair of tools.....					114.58
Purchase of material.....					67.43
Inspection.....					1,382.03
Traveling expenses.....					83.01
Rent of office.....					20.00
Total expended to June 30, 1904.....					6,438.79
Average per kilometer.....					2,018.43

TABLE No. 8.—*Work done by the two road scrapers on the repairs of Ponce-Guayama road from April 25 to June 30, 1904 (included in Table No. 7, under "Fills, embankments, and side ditches")*.

Section.	Class of work.	Work done.		Cost.		
		Linear meters.	Cubic meters.	Per linear meter.	Per cubic meter.	Total.
Kilometer 27	Ditches and embankments	836	1,667	\$0.25	\$0.12	\$205.04
Kilometer 28	do	40	72	.47	.26	18.68
Kilometer 29	do	506	707	.19	.14	96.91
Kilometer 30	do	570	855	.16	.11	90.90
Average and total .....	.....	1,952	3,301	.21	.13	411.53

RECAPITULATION.

The grand total expended in the district of Ponce for the fiscal year ending on June 30, 1904, amounts to \$55,805.46, giving an average of \$346.61 per kilometer for the time stated.

TABLE No. 8.—*Budget items of expenditures in the Ponce district during the fiscal year ending June 30, 1904.*

Budget items.	Road number and section.									Total.	Expenditures per kilometer.
	Roads Nos. 1 and 4, kilometers 60-70, 1-12.	Road No. 1, kilometers 70-90.	Road No. 1, kilometers 90-110.	Road No. 1, kilometers 110-130.	No. 1, Ponce-Playa; No. 6, kilometers 1-21.	Road No. 4, kilometers 12-34.	Road No. 6, kilometers 21-34.	Road No. 3, kilometers 1-56.	Guayo bridge tests, etc.		
Overseers.....	\$900.00	\$900.00	\$900.00	\$900.00	\$900.00	\$900.00	\$900.00			\$6,300.00	\$39.13
Capataces.....	720.00	360.00	360.00	360.00	360.00	360.00	360.00	\$720.00		3,600.00	22.36
Camineros.....	1,680.00	1,680.00	1,680.00	1,680.00	2,160.00	1,680.00	1,200.00	1,920.00		13,680.00	84.97
Laborers.....	1,733.98	1,880.93	1,345.51	2,409.35	2,885.07	1,878.43	1,496.64	1,922.74		15,665.57	97.80
Rent of houses	60.00					133.00		26.19		219.19	1.36
Bridges, culverts, etc.			45.85			204.96				250.81	1.55
Broken stone (contracts)	960.00	2,352.00	1,580.00	2,143.00	900.00	519.00	896.00			9,350.00	58.08
Steam rollers, salaries.....			1,080.00		540.00		540.00			2,160.00	13.41
Steam rollers, repairs and material.....			502.03		96.56		96.56			695.15	4.31
Carts and ox teams	378.25	582.26	474.12	701.75	300.00	596.75	16.00	359.75	\$2.90	3,411.78	21.19
Postage, etc ..	4.00	3.60	5.00	.80		4.20	1.00	2.90		21.50	.13
Tools and material	92.19	27.25	23.07	69.95	155.85			17.80	65.35	451.46	2.80
Total per section ..	6,528.42	8,313.39	6,940.89	8,792.20	8,297.48	6,276.34	5,506.19	4,969.38	181.17	55,805.46	346.61
Average per kilometer ..	296.75	415.67	347.04	439.61	331.90	285.28	423.55	261.54			

Respectfully submitted.

J. C. BESOSA, *District Engineer.*

The SUPERINTENDENT OF PUBLIC WORKS,
San Juan, P. R.

APPENDIX D.

REPORT OF THE MAYAGUEZ DISTRICT ENGINEER.

BUREAU OF PUBLIC WORKS,

Mayaguez, P. R., June 1, 1904.

SIR: In compliance with your request of date May 17, 1904, inviting me to submit a report covering all work done on the sections of the Mayaguez district, I have the honor to submit to you the following:

MAINTENANCE OF ROADS.

Number, section, and kilometers of road maintained during the year 1903-4.

Road No.	Section.	Distance maintained.
		<i>Kilometers.</i>
2	Mayaguez to Anasco River.....	9.20
3	Mayaguez to San German.....	20.00
3	Sabana Grande to Yauco.....	10.00
8	Aguadilla to San Sebastian.....	23.70
8	San Sebastian to Lares.....	10.00
14	Consumo to Las Marias.....	9.00
	Total.....	81.90

Number of kilometers, permanent force employed, and expenses of same during the year 1903-4.

Length.....kilometers.. 81.90
 Cost per kilometer..... \$176

	Number.	Salaries.
Camineros.....	22	\$5,160
Capataces.....	6	1,920
Sobrestantes.....	3	2,700
Watchmen.....	2	720
Engine drivers.....	2	1,440
Clerk.....	1	720
District engineer.....	1	1,800
Total.....		14,460

The total of expenses during the year on auxiliary labor amounted to \$4,892.69, or an average of \$59.66 per kilometer.

Yearly expenses for house rent amounted to \$156, or an average of \$1.90 per kilometer.

The expenses for broken stone, hire of carts, steam rollers, etc., have been \$10,132.06, or an average yearly expenditure of \$123.56 per kilometer.

In repairs of bridges, culverts, etc., an expenditure of \$577.02 was made during the year, giving an average of \$7 per kilometer.

Synopsis of expenditures per kilometer during the year 1903-4.

Salaries, field force:	
Permanent force	\$176.00
Auxiliaries.....	59.66
House rent.....	1.90
Repairs to bridges, culverts, etc.....	7.00
Broken stone, hire of carts, steam rollers, etc.....	123.56
Total per kilometer.....	368.12

The following table shows the amounts of broken stone purchased during the year and its cost:

Road No.	Section.	Cubic meters.	Contractor.	Cost per cubic meter.	Cost of placing 1 cubic meter.	Total cost of 1 cubic meter, placed.
2	Mayaguez to Añasco.....	800	S. Castillo	\$1. 65	\$0.47	\$2. 12
3	Mayaguez to San German.....	1, 500	.....do	1. 95	.45	2. 40
8	Aguadilla to San Sebastian.....	1, 500	J. Calvente.....	1. 75	.63	2. 38

Total amount of stone purchased during the year, 3,800 cubic meters.						
Cost of the stone.....						\$6, 870. 00
For placing.....						2, 015. 75
Total cost.....						8, 885. 75

Therefore we find an average of \$2.34 per cubic meter of stone placed.

ROAD No. 2.—SECTION MAYAGUEZ TO AÑASCO RIVER.

[Length, 9 kilometers.]

Expenses on this section during the year 1903-4.

Salaries, field force:		
Permanent force		\$1, 170. 00
Auxiliaries		770. 01
Repairs to bridges, culverts, road houses, etc.....		331. 56
Broken stone, hire of carts, steam rollers, etc.....		1, 833. 60
Total		4, 105. 17

The cost of maintaining 1 kilometer was \$456.

This section, one of the most picturesque of the island, is at present in a fine condition.

During the year many improvements have taken place, as the remetaling of 3,000 linear meters, where a layer of 10 centimeters thick of broken stone was spread and rolled with steam road roller.

The amount of stone purchased was 800 cubic meters, at a contract price of \$1.65 per cubic meter.

The amount expended in remetaling the 800 cubic meters of stone was \$375.33, giving an average cost of \$0.47 per cubic meter of stone placed and rolled, or a total cost of \$2.12, including the cost of the stone.

The bridge called "Yaguez" was painted at a total cost of \$95, and 14 masonry culverts were repaired at a cost of \$331.56.

The most important needs of this section are 1,000 cubic meters of broken stone for remetaling and patching, especially at kilometers 5, 6, 7, and 8; culverts, repairs of 6 wooden culverts, the construction of 2 concrete pipes 0.78 millimeter in diameter, and the repairs of 2 caminero houses.

ROAD No. 3.—SECTION MAYAGUEZ TO SAN GERMAN.

[Length, 20 kilometers.]

Expenses on this section during the year 1903-4.

Salaries, field force:		
Permanent force		\$2, 700. 00
Auxiliaries		1, 377. 36
Repairs to bridges, culverts, road houses, etc.....		167. 22
Broken stone, hire of carts, steam rollers, etc.....		3, 783. 85
Total		8, 028. 43

Average cost per kilometer per year, \$401.

Besides the improvements made last year on this section, there were many others to be done, of which some have been carried out and others are still in progress.

This section is considered as the most important one of this district, on account of the heavy traffic, which always destroys and wears out the macadam.

The permanent force in charge of this road are always kept busy, not only in cleaning ditches, culverts, etc., but in opening drains on both sides of the road in order to avoid the waters being detained in side ditches. This kind of work they are compelled to do very often.

The macadam has been repaired at different places, for which 1,500 cubic meters of broken stone were purchased at contract price of \$1.95 per cubic meter. This amount of stone was spread and rolled on places needed from kilometers 1 to 14. The length of road remetaled has been 6,300 meters, with a width of 4.50 meters and a thickness varying from 0.05 to 0.10 meters.

The spreading and rolling (by steam road roller) of 1,500 cubic meters of broken stone cost \$685.42, making \$0.456 the price per cubic meter.

The cost of 1 cubic meter of stone after being placed was \$2.40.

Three culverts have been repaired on this section at a total cost of \$167.22. The work consisted in placing new floors and repairs of walls.

Part of this section from Pezuela bridge toward San German is now being repaired, especially the macadam. An allotment of \$6,500 was made out of the "trust fund" for the repairs.

The most important needs of the section from Mayaguez to San German are as follows:

Two thousand cubic meters of broken stone for remetaling from kilometer 8 to kilometer 14.

Repairs of the bridge "Mirasol," at kilometer 10, as it is at present in bad shape, and the repairing of 16 masonry culverts; also the repairing of the 2 caminero houses.

ROAD NO. 3.—SECTION YAUCO TO SABANA GRANDE.

[Length, 16.70 kilometers.]

Expenses on this section during the year 1903-4.

Salaries, field force:	
Permanent force	\$748. 69
Auxiliaries	445. 64
House rent	36. 00
Broken stone, steam rollers, hire of carts, etc.....	25. 36
Total	1, 255. 69

Average price of 10 kilometers maintained from September 1, 1903, to July 1, 1904, \$125.56.

Last September I was ordered to take charge of the two portions of road completed, which were 6 kilometers at Sabana Grande and 4 kilometers on the Yauco side. One capataz and three camineros were named in charge of these two sections.

The only work accomplished on these sections has been the cleaning and repairing of ditches and sidewalks and the refilling of ruts and patches.

There are still two kilometers to be constructed before this section is entirely completed. I take this opportunity to respectfully recommend that an allotment of \$3,000 be assigned in order to finish this section.

ROAD NO. 8.—SECTION AGUADILLA TO SAN SEBASTIAN.

[Length, 23.70 kilometers.]

Salaries, field force:	
Permanent force.....	\$3, 540. 00
Auxiliaries	1, 200. 58
House rent	96. 00
Repairs to bridges, culverts, road houses, etc.....	68. 24
Broken stone, hire of carts, steam rollers, etc.....	4, 246. 05
Total	9, 150. 87

Average cost per kilometer per year, \$398.

This section of road is at present the only one of this district needing all kinds of improvements. In each one of my monthly reports for this fiscal year I have stated the bad condition of the road. For this section 1,500 cubic meters of broken stone have been purchased at a contract price of \$1.75 per cubic meter. This quantity of stone was used in remetaling 3,245 linear meters of road, which work has cost \$955, or an average of \$0.63 for placing and rolling 1 cubic meter. The total cost of 1 cubic meter of stone placed was \$2.38.

Three wooden bridges were repaired during the year at a cost of \$68.24.

The most important works needed are as follows: The repairing of the macadam, which at many places is all worn out, and for which at least 4,000 cubic meters of broken stone should be purchased.

Bridges and culverts: The construction of bridges at Guatemala and Garcia, the former of 14 meters span and the latter of 8 meters. The repairing of 5 culverts, which work is estimated at \$2,600.

ROAD NO. 8.—SECTION SAN SEBASTIAN TO LARES.

[Length, 14.67 kilometers.]

Expenses on this section during the year 1903-4.

Salaries, field force:	
Permanent force	\$302.00
Auxiliaries	592.75
Broken stone, steam rollers, hire of carts, etc.....	87.50
Total	982.25

Average price per kilometer maintained from September 1, 1903, to July 1, 1904, \$98.22.

When this section, 10 kilometers long, was turned over to my charge last September I found it in a very good condition. In charge of the section a capataz was named to direct a gang of 7 men, employed in the removal of landslides, etc. It would give a satisfactory result if all the roads of the island were maintained in the same manner these 10 kilometers have been attended to this year, as already stated in some other part of this report.

The unfinished section of this road is now under construction, but not under my charge.

ROAD NO. 14.—SECTION CONSUMO TO LAS MARIAS.

[Length, 9 kilometers.]

Expenses on this section during the fiscal year 1903-4.

Salaries, field force:	
Permanent force	\$1,290.00
Auxiliaries	506.35
House rent	24.00
Repairs to bridges, culverts, and embankments.....	10.00
Broken stone, steam rollers, hire of carts, etc	155.70
Total	1,986.05

Average price per kilometer per year, \$220.

The condition of this section is as good as it was last year, and this is due to the force in charge, who, as stated in my report of last year, are men who attend thoroughly to their duties.

In the amount expended on permanent force is included half-year salary of the sobrestante, who, besides being in charge of this section, has the supervision of the Mayaguez-Añasco road.

The most important work to be done on this section is the repairing of the embankments at kilometer 6, which, on account of the erosion of the creek running at its foot, are always washed away. The quantity of stone which must be purchased during the next fiscal year is 500 cubic meters.

ROAD NO. 2.—SECTION AGUADILLA TO CAMUY.

[Length, 42 kilometers.]

Last June I was instructed to take charge of this section, but the force employed therein, 2 capataces and 7 camineros, were to be paid from the trust fund.

Up to and including June 1 there have been expended the following:

Capataces and camineros.....	\$2,897.10
House rent	27.66
Painting of bridge at Guajataca.....	90.00
Incidental	183.52
Total	3,198.28

The unfinished part of this section is now under construction, but not under my charge.

SPECIAL WORKS.

EXPENSES CHARGED TO TRUST FUND.

Besides the inspection of the roads now under maintenance, I have been directed to take charge of all the repair work done and still going on in the sections of roads which form part of the Mayaguez district.

1. *Añasco River bridge.*—This bridge was started some time last September and completed on March 11. On this date, due to a great flood, damages were caused to the bridge, and it was necessary to repair and strengthen the same. A second contract was entered into with the same contractor, and I am pleased to say that the bridge is now completed and open to the public.

Two approaches to the bridge were constructed by day-labor, and consisted of 412 linear meters of new road constructed at a cost of \$1,560.

2. *San German-Lajas road.*—In July, 1903, instructions were given me to proceed to the repairs of the steep ascent back of San German, for which the amount of \$4,500 was allotted. Work commenced in the same month and lasted till September, having expended in the repair of 2 kilometers, including roadbed, ditches, 2 culverts, and macadam, the amount of \$4,031.

At present this section is being maintained by the board of road supervisors, and I am pleased to say that it is kept in good condition.

3. *Mayaguez-Consumo road.*—The repairs of this road were commenced in October last, and up to date there have been expended about \$14,000.

Fifteen concrete pipes were constructed by contract at a total cost of \$1,919.75, and 8 kilometers have been repaired by day-labor. The allotment of \$15,000 for these repairs will be exhausted probably before July of the present year.

The length of this section is 14 kilometers, and there are still to be repaired 6 kilometers, which I have figured to cost about \$8,000. I respectfully recommend that this amount be allotted for the completion of the road.

4. *Yauco-Sabana Grande road.*—The allotment of \$6,000 for the repairs of this section unfinished is now exhausted, having completed 3+100 kilometers of road. There are still to be finished 1,500 kilometers.

5. *Sabana Grande-San German road.*—On April 13, 1904, orders were received to start the repairs of this road, for which an allotment of \$10,000 had been made. Work was commenced the second half of the month of April and is now progressing rapidly. The stone used is being purchased by contract at a price of \$1.10 per cubic meter. By July 1, 1904, 4 kilometers will be repaired, at a cost of about \$5,000.

6. *Consumo-Maricao road.*—This section, a municipal road, is 10 kilometers long and was in very bad condition. Last April orders were issued to begin the repairs, for which an appropriation of \$13,000 had been made.

Work is now in progress, nearly 4 kilometers of roadbed and ditches having been repaired up to June 1.

The stone is being purchased by contract at a price of \$1.10 per cubic meter.

7. *Puente Pezuela-San German.*—This section is a part of road No. 3, from Mayaguez to San German. It was in very bad condition, especially its macadam, for which the amount of \$6,500 was allotted. The stone is being purchased by contract at \$1.80 per cubic meter, and the work is performed by the regular force of maintenance, with help of some auxiliary labor.

8. *Repairs to passenger wharf at port of Mayaguez.*—An estimate was submitted for repairing the wharf, and the amount of \$350 was allotted by the department of docks and harbors. The amount of \$326.64 was expended on the placing of new floor beams, 5 new piles, and painting the wharf.

Respectfully submitted.

R. SKERRETT,
District Engineer.

Mr. P. F. FERNANDEZ,
Acting Superintendent Public Works, San Juan, P. R.

APPENDIX E.

REPORT OF THE SUPERVISOR OF PUBLIC BUILDINGS.

BUREAU OF PUBLIC WORKS, SECTION OF PUBLIC BUILDINGS,
San Juan, P. R., June 20, 1904.

SIR: I have the honor to submit for your consideration the following report of work executed and being carried on by the section of public buildings during the present fiscal year ending June 30, 1904.

The following is a list of buildings at present under control of the bureau of public works:

Executive mansion, San Juan, P. R.: Residence and office of the governor; secretary's office; headquarters of insular police.

Intendencia, San Juan, P. R.: Office of the commissioner of the interior; treasury department; department of education; auditor's office; bureau of insular telegraph; bureau of harbors and docks; bureau of public lands.

Diputation, San Juan, P. R.: Executive council chambers; house of delegates; attorney-general's office; insular library; government printing office; United States post-office.

Audiencia, San Juan, P. R.: Supreme court; district court of San Juan.

Allen street No. 3, San Juan, P. R.: Bureau of public works; consolidated department of health, charities, and corrections; residence of the secretary of Porto Rico.

Allen street No. 5, San Juan, P. R.: United States district court; United States weather bureau; consolidated department of health, charities, and corrections.

Insane asylum, San Juan, P. R.: Insane inmates and residence of the superintendent. The southern wing or end of this building is still occupied by the San Juan High School.

Boys' charity school, Santurce, San Juan, P. R.

Girls' charity school, Santurce, San Juan, P. R.

Insular penitentiary, San Juan, P. R.

Allen street No. 2, San Juan, P. R.: Section No. 1, residence of commissioner of education; section No. 2, residence of the auditor; section No. 3, residence of the attorney-general.

Pabellon de San Juan: Residence of the treasurer.

Red house, Puerta de Tierra, San Juan, P. R.: Residence of the commissioner of the interior.

Insular police barracks, Puerta de Tierra, San Juan, P. R.: Occupied by the insular police as substation of San Juan.

Convalecencia (or governor's summer palace), Rio Piedras, P. R.: Occupied by insular police and telegraph office; also gardens in connection with executive mansion.

Leper colony on Cabras Island, entrance to San Juan harbor: For leper inmates and residence of the attendant in charge.

Public works warehouse, Marina, San Juan, P. R.

Public works storehouse (old army bakery), San Juan, P. R.

Government building, Caguas, P. R.: Occupied by insular police and telegraph office.

Government building, Humacao, P. R.: Occupied by insular telegraph office.

Jail and court building, Ponce, P. R. (old military barracks): Occupied by United States district court; plans being prepared for the installation of the Ponce district court, Ponce district jail, and Ponce municipal court.

Blind asylum (old military hospital), Ponce, P. R.: Plans being prepared for the installation of asylum for the blind in this building.

Public works building, Ponce, P. R.: Occupied by district engineer and insular telegraph office.

Public works building, Mayaguez, P. R.: Occupied by district engineer and insular telegraph office.

Court building, Arecibo, P. R.: Occupied by the Arecibo district court; plans being prepared for the installation of the municipal court and insular police on the first floor.

EXECUTIVE MANSION.

The only repairs of any importance in this building have been the installation of a bath and toilet room with cement floor in the quarters of chief of insular police, the painting of all rooms and offices occupied by the police department, the construction of new plaster ceiling in governor's private bathroom, and the reconstruction of the lower garden. The stable stalls and floor have been rebuilt, and a wood partition was built on ground floor to make an office room for the custodian.

The large round columns in the courtyard were painted.

At the old summer palace in Rio Piedras a new masonry cesspool was built, a new water-closet put in for the police, the sewer repaired, and minor repairs made to other plumbing. A new line of water pipe was also extended through the garden.

In the public reception room of executive mansion 3 large ceiling lights and 40 incandescent lights were installed; also a complete new installation of wire and lights was made in the police offices.

The other expenditures for labor and building materials have been in the general maintenance and minor repairs of the building and furniture.

The exterior part of the secretary's office is at present being painted.

The total expenditures on repair work for both executive mansion and Rio Piedras summer palace, including the painting work at present being done on the secretary's office, are \$1,846.34.

Total expenditure of repair work and maintenance of both executive mansion and summer palace up to date, \$11,553.77; total amount of appropriation, \$12,500; available balance, \$946.23.

INTENDENCIA.

Painted one large office room in the auditor's office; painted one office room in treasury department.

Built two wood partitions, painted three office rooms, and built new skylight over one office in department of education.

Electric-lighting wire system throughout entire building has been replaced.

More new shelves have been put in for archives of department of the interior.

A complete new drainage system of iron sewer pipe has been laid in the courtyard and connected to city sewer.

Minor repairs to plumbing work and the building in general have been carried on during the year, and the building at present is in excellent condition.

Total amount expended, \$718.97.

DIPUTACION.

General repairs have been made to all broken plaster and doors and shutters throughout the building. One large office room for the attorney-general has been painted, and a new wood screen partition built between two offices in same department; a new sink installed in the printing office; tar-paper roof over frame addition in west-end courtyard repaired and painted.

Electric-light wires throughout entire building have been repaired.

Plumbing system maintained and minor repairs made to the building during the year.

Total expenditure, including contract for painting entire exterior and the two courtyards, which is at present being done, \$1,423.91.

AUDIENCIA.

The only work done in this building has been slight repairs to plumbing and cleaning out sewer system; repairs to leaks in roof and slight repairs to doors and shutters; one new water meter installed; a new line of iron sewer pipe from the building to street sewer is at present under construction.

Total expenditure, including estimated cost of new sewer connection, \$154.02.

ALLEN STREET NO. 3.

On account of the United States Federal court taking possession of more space on the second floor of this building, it was necessary to make considerable alterations in the court department and the secretary's residence, which adjoins the same.

The secretary's bath and toilet room was moved from the space turned over to the court, and new partitions were built and fixtures reset in another location. A new water-closet and wash basin was put in for use of the court.

A new bath and toilet room with cement floor was put in the front part of secretary's residence, and all bedchambers and kitchen of the secretary's residence have been whitewashed and painted.

Considerable repairs have been made to leaks in the roof and many minor repairs made to building throughout.

The garden in the rear has been entirely rebuilt and fixed up; the blue-printing room of the public works has been repaired and painted.

The offices of the consolidated department have been repaired, new screen doors put in, new wood floor laid in one room, and all offices painted.

Total expenditure, \$1,570.34.

ALLEN STREET NO. 5.

Three offices in the board of health have been refloored, and these three offices and two large office rooms of United States district court painted; also built one new wood partition in United States district court building.

The work of changes and alterations heretofore mentioned in Allen street No. 3, in connection with the court, were charged against Allen street No. 5, as the court is properly in this building.

The plumbing and lighting systems have been maintained and minor repairs made to doors, shutters, etc., from time to time.

Total expenditure, \$659.24.

INSANE ASYLUM.

The new plumbing system, which was fully explained in my last annual report, has been completed and is at present in an entirely satisfactory condition.

Besides the work reported in said last report, there has been done the following, payable from "permanent-repairs" fund for the asylum:

New concrete cement floor in the main kitchen; a masonry table with marble top built in kitchen; the new range set up and flue built; also doors and shutters repaired in kitchen and walls and ceiling painted.

In laundry and all toilet rooms new doors were made and new wood partitions built for toilet rooms, all of which have been painted.

A new wood floor has been laid in one office of the superintendent and in the women's dining room; also considerable repairs have been made to old floors in the dormitories.

The main laundry and all toilet and bath rooms have new concrete and cement floors. The lower courtyard in the women's department and the courtyard which lies between laundry and outside entrance has been filled in and concreted. The laundry floor is finished off with cement.

A new cement stair or steps has been constructed, which leads from one of the lower courtyards to upper front yard.

The drain from the hogpen has been laid new with 4-inch iron sewer pipe and connected to main sewer.

The brick wall around the lower women's courtyard was built about 2 feet 6 inches higher.

New floor drains and traps have been put in the 12 cells for women; also new drains and traps placed in the floor of corridor outside of cells.

The vent stacks for these cells have been extended higher above the roof, in order to carry off the odors from same.

Total expenditure from permanent repairs insane asylum, \$9,866.20; from regular fund, \$38.41; total, \$9,904.61.

BOYS' CHARITY SCHOOL.

Four sets of modern slate urinals have been installed in the main toilet rooms for boys.

One arch was cut out in brick wall at one end of boys' dining room, so as to enlarge the room; new cement floor was laid in the new addition thus made; new wood floor was laid in one large class room, and a cement floor laid in room used for water filters.

Sixteen new shower baths have been installed in bathroom for boys.

The drainage system for the main courtyard has been entirely reconstructed, with brick drains and iron grates, and the cement floor repaired.

Kitchen cement floor repaired and new floor drain put in.

One new wash sink installed in courtyard.

General repairs have been made for the maintenance of plumbing and electric lighting systems.

Total expenditure, \$1,334.65.

GIRLS' CHARITY SCHOOL.

No work has been done in this building during the year, except small repairs for the maintenance of plumbing and lighting systems and making a new flue for the kitchen.

Total expenditure, \$106.33.

INSULAR PENITENTIARY.

Complete new wood floors have been laid throughout all the workshops in main building; a concrete and tile floor has been laid in the main entrance hall and inside corridor; all the masonry walls between the workshops in main front building were cut out, thus forming open arches between; 3 new doors were cut in walls; 12 large galvanized ventilators have been installed in roof over main prison dormitory.

Material has been furnished for concrete and cement floors in courtyards and carpenter shop.

New brick-tile roof constructed over the infirmary.

One new water-closet installed for the warden and two for the employees.

Lime and paint has been furnished for whitewashing walls and painting woodwork.

Total expenditures, \$1,349.84.

ALLEN STREET NO. 2.

Section No. 1.—Built new wood stair to roof in courtyard; installed new slop sink in kitchen; repaired kitchen range; made slight repairs to floors, doors, and shutters, and calcimined two rooms.

Changed location of water meter from front of building to inside courtyard.

Sections Nos. 2 and 3.—No work done except maintenance of plumbing, lighting, and electric call-bell systems, and slight repairs to doors and shutters.

Total expenditure, \$182.76.

PABELLON DE SAN JUAN.

No work except slight repairs to plumbing and light systems.

Total expenditure, \$9.35.

RED HOUSE.

All interior walls, ceiling, and floors painted two coats.

Roof repaired and new gutters put up; veranda, doors, and shutters repaired; plumbing repaired.

Total expenditure, \$293.01.

INSULAR POLICE BARRACKS, PUERTA DE TIERRA.

Repairs are at present being made to this building; the interior is being white-washed, all doors, shutters, and the exterior painted, broken plaster on all walls repaired, and general repairs made to doors and shutters; new cement floor is being laid in toilet and bath room, and one water-closet and shower bath installed.

Estimated cost, \$336.20.

LEPER COLONY.

Two new frame cottages have been constructed for the care of suspected cases.

At present the cistern for women's quarters is being cleaned out and repaired, cement floor laid in frame addition, to be used for bathroom, and kitchen range and kitchen repaired.

Total amount estimated, \$355.55.

PUBLIC WORKS WAREHOUSE, MARINA.

For telephone, rent, transporting and hauling materials there has been expended the sum of \$350.03.

PUBLIC WORKS STOREHOUSE.

For cleaning out the premises and repairing gates, locks, etc., there has been expended the sum of \$37.78.

GOVERNMENT BUILDING, CAGUAS, P. R.

Built new wood partitions in the police quarters, put up flag pole, repaired doors and shutters, and cleaned cesspool.

Total expenditure, \$156.86.

GOVERNMENT BUILDING, HUMACAO, P. R.

No repairs have been made during present fiscal year.

JAIL AND COURT BUILDING, PONCE, P. R.

For the installation of the United States district court on second floor, new wood partitions were built to form court room and the necessary offices; three water-closets, two urinals, one wash basin, and one sink put in.

The interior of all court rooms, etc., whitewashed and painted.

Judge's platform and bar railing put up in court room.

Services of watchman and minor repairs to doors.

Total expenditure, \$301.41.

BLIND ASYLUM, PONCE, P. R.

Service of watchman, \$133.70.

PUBLIC WORKS BUILDING, PONCE, P. R.

For repairs of water pipes, \$2.50.

PUBLIC WORKS BUILDING, MAYAGUEZ, P. R.

Repairs to fence, \$16.02.

COURT BUILDING, ARECIBO, P. R.

Work is now in progress for the installation of the municipal court on ground floor; new wood partitions are being put up to form court room and offices; repairs to floor, doors, and shutters; judge's stand and bar railing to be put up; all rooms to be whitewashed and woodwork painted.

Estimated cost, \$325.

PUBLIC WORKS STABLES, SAN JUAN, P. R.

For the feed, shoeing, and maintenance of four horses, repairs on one wagon, one coach, one buggy, two sets double harness, one set single harness, repairs to stables, etc., the total expenditure up to date is \$826.89.

CONTINGENT EXPENSES, PUBLIC BUILDINGS.

For the services of one foreman, at \$75 per month; one teamster, at \$50 per month; one teamster's helper, at \$20 per month; and for the services of a draftsman, at \$100 per month, when needed; and repairs to water meters. The purchase of flags and bunting for all public buildings is paid under this subhead.

Total expenditure to date, including a new supply of flags and bunting, just purchased, \$2,460.04.

ELECTRIC LIGHTING FOR PUBLIC BUILDINGS.

For lighting and current in all public buildings in San Juan and vicinity, total expenditure up to the 31st day of May, 1904, \$4,636.28.

WATER FOR PUBLIC BUILDINGS.

For water consumed in all public buildings in San Juan and vicinity, total expenditure up to May 31, 1904, \$12,433.70.

BUILDING OF CELLS IN INSANE ASYLUM.

For putting in new drains and traps, and beginning the construction of six new cells for women's department the sum of \$67.85 has been expended.

In conclusion I wish to say that plans are nearing completion for the new district jail and the blind asylum at Ponce, to be installed in the buildings which were lately turned over to the insular government by the War Department, also for the construction of a new jail and repairs to the court building at Arecibo.

Also I am at present carrying on the work of renting and repairing buildings throughout the island for the installation of the new municipal courts and two

new district courts. This work is being carried out under instructions from the attorney-general, and the department of justice is paying all expenses connected therewith.

Respectfully submitted.

GUY S. BOYCE,

Overseer of Public Buildings.

Mr. P. F. FERNANDEZ,

Acting Superintendent of Public Works, San Juan, P. R.

APPENDIX F.

REPORT OF THE SURVEYOR AND ARCHITECT.

BUREAU OF PUBLIC WORKS,

San Juan, P. R., June 20, 1904.

SIR: I have the honor to submit herein my report of the works executed by the division under my charge during the fiscal year ending June 30, 1904.

At the beginning of said fiscal year and during the months of July, August, and September works were executed in the field and office for the demarcation and measurement of the public lands located at the barrios of Santa Rosa and Caguana, in the municipality of Utuado. The expenses for said work were paid from funds of the treasury, amounting to \$498.20.

With this end in view, in the last month, June, a triangulation of 38 vertices had been made, with two bases measured directly three times, taking correct bearings for the sides of the triangles in relation to the astronomical meridian of the place, which was obtained by means of repeated quadruple observations of Polaris during three consecutive nights; these observations corrected for declination by data taken from the Nautical Almanac of that year.

As a result of this work the following was accomplished:

First. The demarcation of a piece of land of 1,511.26 cuerdas sold at public auction to private parties.

Second. The discovery and demarcation of another piece of land containing 315.54 cuerdas belonging to the people of Porto Rico.

As the funds appropriated for this purpose were exhausted, the work in the field to determine the total extension of these public lands was stopped.

To make this survey it was necessary to cover a greater area, about 4,600 cuerdas. In such an irregular and broken country, to find a proper site approximately horizontal where to measure the base for comprobation, only 135.42 meters of linear extension could be had at a distance of 7 kilometers apart from the first base. Therefore the triangulation covered a superficial extension of about 50 square kilometers.

As no amount was provided by the legislature in this fiscal year, for office or field work for this division, the undersigned was obliged to carry out that part of the pressing work that he could personally do, giving the plans to be copied to the draftsmen.

In September the making of the project for the Ponce district jail was begun, said jail to be erected on the lot purchased for this purpose by the municipality of that city. When the plans for this jail, to accommodate 500 prisoners, were almost finished, orders were received to suspend work on the same and to proceed to make a project for repairs and improvements to a jail at the Ponce barracks.

Having received superior orders to the effect that the bureau of public works should assist the Porto Rican commission to the St. Louis Purchase Exposition, the superintendent of public works issued an order to the undersigned to suspend his work and place himself at the order of said commission.

In September of last year he did so, having accomplished for said commission the following works:

During the months of November, December, and January a project was made for a building to install all the exhibits from Porto Rico at the World's Fair, which project was approved by the commission at the end of January, and then the undersigned was ordered to proceed to St. Louis, together with the secretary of the same commission, Mr. Pedro J. Besosa, to contract for the erection of the building and to supervise said work, being authorized also, in case any changes or modifications should be found necessary, to propose them to the commission after examining the locality.

On the 2d of February the undersigned left for the United States, and after he had left the commission decided to substitute the intended building with only interior constructions in the agricultural and education buildings of said exposition.

On the 23d of February the projects for those exhibits were sent to Porto Rico, after being approved by the general directors of the St. Louis Exposition, but said

project was not approved by the Porto Rican commission until the end of March, with a number of modifications and suppressions tending to reduce the estimated amount.

Having contracted for the work in St. Louis and executed the staking out of the same, the duties of the undersigned were at an end, and he therefore returned to Porto Rico on the 14th of April last.

During the rest of the year he made a map of the island on a scale of 1:100,000, with statistical data of cultivated areas, means of communication, and amount of trade, which map was sent to St. Louis on the 10th of May to be included in the Porto Rican exhibit.

At the beginning of the present month plans and estimates for the repairs of the building "Cuerpo de Guardia de San Geronimo" were prepared for the purpose of changing same into insular police barracks.

The rest of the present month has been devoted to the work of preparing a topographical map of the island on a scale of 1:50,000, using the documents on file in the archives of the bureau of public works and others belonging to different parties, but of acknowledged correctness.

This work being based on the situation of the trigonometrical bases of the triangulation executed by the Spanish geodetical survey commission, the transformation of the geographical ordinates of those vertices into rectangular ordinates in meters and centimeters was commenced, taking the Washington meridian as the origin of the abscises.

As we have already stated, this will render more easily available the many important data which are to be found at present disseminated, and which have imparted great amounts to the treasury of the island in previous years, and with which a topographical representation of the largest part of the island on a scale of 1:50,000 will be obtained.

I beg to suggest to you the convenience of recommending the appropriation of \$6,000 during two consecutive years for this purpose, this amount to be expended in extending said triangulation from the vertices situated along the coast up to all the interior parts of the island, obtaining by this process the necessary elements to calculate not only the absolute situation of the vertices needed, but also all the visible points constituting natural landmarks in all the municipalities of the island and any data missing to complete the few blank spaces left in the plan on a scale of 1:50,000 which is being made.

Furthermore, this work would give two other advantages of much more importance if it should be ordered that artificial visible marks at long distances be established on those vertices where no natural landmarks could be obtained and publishing the rectangular ordinates obtained by calculation for all the vertices and a detailed description of same for the purpose of compelling the land surveyors who make surveys on the island to refer always to two or more of those vertices and to send copies of the field data to this office.

Those two important advantages would be: First, that the present disorder due to false orientation recorded in the descriptions of boundaries of properties as registered in the office of the registrar of property of this island would disappear, this being due to the fact that surveyors in general take as the north direction the north given by the magnetic meridian, this being also completely undetermined in Porto Rico, not only owing to the variation which takes place during the day and reaches nearly 1° centesimal, but for numberless disturbing causes whose enumeration here would be prolix. Thus a great number of errors and mistakes are made in the descriptions of boundary lines of those estates, and as a final result the office of the registrar of property, which should be the guaranty of the rural property holders, is on the contrary a continuous source of litigation. The second advantage would be that the recording in this office of those private works would furnish the elements necessary to obtain, insensibly and without cost to the treasury of the island, the plans for the taxes on the different properties on a scale of 1:5,000 for each one of the municipalities connected correctly by the triangulations, and said plans could be reduced afterwards to a general one of the island and its adjacent ones in separate sheets on a scale of 1:20,000, obtaining in this way the primary and essential element for the assessment of the tax.

I deem it also my duty to recommend to you the convenience of debarring private parties from occupying and making use of public lands with detriment to the insular treasury, regulating the vigilance to prevent the said abuse, and imposing a penalty on the intruders.

Very respectfully,

ARMANDO MORALES,
Surveyor and Architect.

MR. PEDRO F. FERNANDEZ,
Acting Superintendent Public Works, San Juan, P. R.

APPENDIX G.

BIDS AND AWARDS.

July 2, 1903.—Bids for the construction of the buildings to be erected at the convict camp.

Only one bid, Juan R. Lous, of Humacao, for \$2,200; rejected.

July 16, 1903.—Bids for the construction of a section of the Arecibo-Ponce road, 4.6 kilometers long, between Tallones and Adjuntas.

Name and address of bidder.	Total cost.
José Roig Colomer, Utuado.....	\$60,626.00
Raoul Marix, Utuado.....	47,577.00
Domingo Rinatti, Ponce.....	69,370.00
Luis F. Rubio, San Juan.....	65,629.00
Roque Paniagua, San Juan.....	71,307.00
W. D. Noble, San Juan.....	71,518.00

The contract was awarded to Raoul Marix for \$47,577, he being the lowest bidder.

August 5, 1903.—Bids for the construction of wing walls and parapets of the Mavilla River bridge.

Name and address of bidder.	Total cost.
Benjamin Morales, Mayaguez.....	\$2,618.00
Roque Paniagua, San Juan.....	2,838.00
José Lago, San Juan.....	2,907.50
Andrés G. Canton, Naranjito.....	3,498.00
Liborio Sierra, Corozal.....	4,658.00

The board recommends the acceptance of the bid of Roque Paniagua for \$2,838, the next lowest bidder.

August 31, 1903.—Bids for the installation of a plumbing system at the jail in Puerta de Tierra.

Name and address of bidder.	Total cost.
José Castro, San Juan (45 days).....	\$1,995.00
Juan Llobet, San Juan (5 weeks).....	1,489.00
J. E. Gordon (2 months).....	1,135.00
H. Kaplan (1 month).....	750.00

Contract was awarded to H. Kaplan for \$750.

September 23, 1903.—Bids for the construction of 15 concrete drainpipes and repair of 6 culverts and 6 old drainpipes along the Mayaguez-Consumo road.

Name and address of bidder.	Total cost.
Raoul Marix, San Juan (3 months).....	\$4,085.00
Benjamin Morales, Corozal (2 months).....	2,850.00
A. Salas, Mayaguez (3 months).....	3,963.00
Roque Paniagua, San Juan (3 months).....	3,352.00
Duffaut & Gonzalez, Mayaguez (2 months).....	2,776.00
Victor Honoré, Mayaguez (3 months).....	2,432.50

The contract was awarded to Victor Honoré, of Mayaguez, for the sum of \$2,432.50.

October 13, 1903.—Bids for furnishing, measuring, and delivering 21,900 cubic meters of broken stone for the maintenance of insular roads in different localities.

SAN JUAN DISTRICT.

ROAD No. 1.

Name of bidder.	Price per cubic meter.		
	Kilometers 10-20 (1,600 cubic me- ters).	Kilometers 26-36 (3,000 cubic me- ters).	Kilometers 46-56 (1,000 cubic me- ters).
José Balado.....	\$2. 25	\$1. 95	.....
Ramon Vila.....	.....	2. 20	.....
Guillermo Orrach.....	.....	2. 24	.....
Enrique Moreno.....	2. 20	2. 20	.....
Raoul Marix.....	.....	2. 25	.....
Roque Paniagua.....	1. 78	1. 68	\$1. 90
Mullenhof & Korber.....	2. 09	2. 35	.....
Pedro Larosa.....	.....	1. 78	.....

Contract for this section was awarded to Roque Paniagua, of San Juan.

ROAD No. 2.

[Kilometers 9-17, 500 cubic meters.]

Name of bidder.	Price per cubic meter.
Inocencio Sanchez.....	\$1. 80
José Cuesta.....	1. 54
Roque Paniagua.....	1. 60

Contract was awarded to José Cuesta, of Bayamon.

ROAD No. 5.

Name of bidder.	Price per cubic meter.		
	Kilometers 1-13 (900 cubic meters).	Kilometers 5-8 (1,000 cubic meters).	Kilometers 22-23 (300 cubic meters).
Julio B. Janer.....	.....	.....	\$1. 95
José Balado.....	\$2. 00	\$2. 10	.....
D. Garofalo.....	2. 20	2. 15	2. 25
Manuel Seoane.....	2. 69	1. 83	.....
Raoul Marix.....	2. 00	1. 69	1. 95
Juan Perez.....	1. 85	.....	.....
Antonio Marquez.....	.....	.....	2. 25
Arturo R. Gomez.....	.....	.....	2. 95

Three contracts were awarded on this section, as follows: Raoul Marix, kilometers 5 to 8; Juan Perez, of Caguas, kilometers 1 to 13, and Julio B. Janer, of Rio Piedras, kilometers 22 and 23.

ROAD No. 7.

Name of bidder.	Price per cubic meter.	
	Kilometers 1-11 (1,000 cubic meters).	Kilometers 22-26 (400 cubic meters).
Eduardo Gonzalez.....	.....	\$1. 80
José Balado.....	\$2. 25	.....
Serafin Soto.....	1. 56	1. 76
Luis Benítez.....	1. 69	1. 79
Roque Paniagua.....	1. 70	.....

Contract was awarded to Serafin Soto, of Rio Grande, for the whole section.

Bids for furnishing, measuring, and delivering 21,900 cubic meters of broken stone, etc.—Continued.

SAN JUAN DISTRICT—Continued.

ROAD No. 10.

[Kilometers 1-16, 200 cubic meters.]

Name of bidder.	Price per cubic meter.
Inocencio Sanchez	\$2.00
José Cuesta	1.65
Roque Paniagua	1.80

Contract awarded to José Cuesta, of Bayamon.

ROAD No. 11.

[Kilometers 1-13, 1,000 cubic meters.]

Name of bidder.	Price per cubic meter.
Taboas Hermano:	
Sample A	\$2.53
Sample B	1.65
Raoul Marix	1.39
Mullenhof & Korber	2.55

Contract awarded to Raoul Marix, of Utuado.

PONCE DISTRICT.

ROAD No. 1.

Name of bidder.	Price per cubic meter.				
	Kilometers 71-83 (600 cubic meters).	Kilometers 86-90 (800 cubic meters).	Kilometers 100-110 (1,000 cubic meters).	Kilometers 111-112 (600 cubic meters).	Kilometers 124-129 (1,200 cubic meters).
Esteban Ortiz				\$1.75	\$1.75
Francisco Davila			\$1.58	1.58	
R. del Valle	\$1.57	\$1.57	1.57	1.57	1.57
Roque Paniagua	1.68	1.68	1.70	1.70	1.80
Carlos Clausells			2.40	2.06	1.39

The contract between kilometers 124 and 129 was awarded to Carlos Clausells, of Ponce; the rest to R. del Valle, of Ponce, who declined to accept it, whereupon the board decided to award it to the next lowest bidders, as follows: Francisco Davila, of Juana Diaz, between kilometers 100 and 110, and Roque Paniagua, of San Juan, between kilometers 71 and 83, 86 and 90, 111 and 112.

ROAD No. 4.

Name of bidder.	Price per cubic meter.	
	Kilometers 1-10 (800 cubic meters).	Kilometers 13-20 (600 cubic meters).
R. del Valle	\$1.57	\$1.57
Francisco Fernandez	1.97	1.97

Mr. Del Valle, the lowest bidder, having refused to accept the contract, no action was taken, the price of the other bidder being too high.

Bids for furnishing, measuring, and delivering 21,900 cubic meters of broken stone, etc.—Continued.

PONCE DISTRICT—Continued.

ROAD No. 6.

Name of bidder.	Price per cubic meter.	
	Kilometers 1-8 (600 cubic meters).	Kilometers 22-26 (800 cubic meters).
Esteban Ortiz	\$1.50	\$1.50
R. del Valle	1.57	1.57
José Balado .....	.....	2.12
Raoul Marix	1.75	1.39
Roque Paniagua	1.70	1.54
Carlos Clausells	2.20	1.12

The contract between kilometers 1 and 8 was awarded to Esteban Ortiz, of Ponce, and the one between 22 and 26 to Carlos Clausells, of the same town.

MAYAGUEZ DISTRICT.

ROAD No. 2.

[Kilometers 0-9, 800 cubic meters.]

Name of bidder.	Price per cubic meter.
Segundo Castillo	\$1.65
Ramon Roman	1.95

Contract awarded to Segundo Castillo, of Mayaguez.

ROAD No. 3.

[Kilometers 1-19, 1,500 cubic meters.]

Name of bidder.	Price per cubic meter.
Segundo Castillo	\$1.95

Contract awarded to Segundo Castillo.

ROAD No. 8.

[Kilometers 0-23, 1,500 cubic meters.]

Name of bidder.	Price per cubic meter.
José Lopez	\$1.97
José Calvente	1.75
Mullenhof & Korber	1.99

Contract awarded to José Calvente, of Aguadilla.

Bids for furnishing, measuring, and delivering 21,900 cubic meters of broken stone, etc.—Continued.

MAYAGUEZ DISTRICT—Continued.

ROAD No. 4.

[Kilometers 0-8, 200 cubic meters.]

Name of bidder.	Price per cubic meter.
Ramon Roman.....	\$2.50

The contract was awarded to Ramon Roman, who declined to accept it.

March 2, 1904.—Bids for the reconstruction of the street along the bulkhead of the San Juan Harbor.

Name and address of bidder.	Labor, per square meter.	Material, per cubic meter.	Both works.
Antonio Higuera, San Juan.....	\$0.18	\$2.25	.....
Rafael Alvarez Torres, San Juan.....			\$3,200.00
Luis Garofalo.....	.57		.....
Roque Paniagua, San Juan.....	a \$1,650.00	2.43	3,600.00
Gaspar Vila.....		3.18	.....
Miguel Salas.....		2.32	12,770.00
Luis Rubio.....		2.29	2,945.70

a Total cost.

Bids of Antonio Higuera and Luis Garofalo were informal and were not considered. Contract was awarded to Luis F. Rubio, of San Juan, for \$2,945.70.

May 20, 1904.—Bids for the erection, launching, and painting of a steel bridge, 80 meters span, across the Manati River.

Name and address of bidder.	Total cost.
Dooley, Smith & Co., San Juan.....	\$24,498.00
Roque Paniagua, San Juan.....	15,749.00
Axtmayer & Son, San Juan.....	28,750.00
L. Ninliatt, Mayaguez.....	12,770.00
Luis F. Rubio, San Juan.....	18,171.00
A. Nin Martinez, San Juan.....	15,949.00

The contract was awarded to L. Ninliatt, of Mayaguez, for \$12,770, the amount of his bid.

June 18, 1904.—Bids for the painting of the diputation building.

Name and address of bidder.	Total cost.
Alfonso Cruz, San Juan.....	\$1,023.00
Axtmayer & Son, San Juan.....	669.00
A. Nin Martinez, San Juan.....	1,095.00
Guadalupe Flores, San Juan.....	899.00
Jack Katz, San Juan.....	1,360.00

The contract was awarded to Axtmayer & Son, of San Juan, for \$669, the amount of their bid.

June 20, 1904.—Bids for the construction of about 4 kilometers of road in the Mayaguez-Las Marias section.

Name and address of bidder.	Total cost.
Adriano Gonzalez, Mayaguez.....	\$15,569.50
L. Ninliatt, Mayaguez.....	14,892.00
José C. Gonzalez, Mayaguez.....	14,510.50
Victor Honoré, Mayaguez.....	13,224.00
Roque Paniagua, San Juan.....	14,673.00

The contract was awarded to Victor Honoré, of Mayaguez, for \$13,224, the amount of his bid.

APPENDIX H.

LAWS RELATING TO THE PUBLIC WORKS.

The provisions in section 8 of the Foraker bill, which is the organic act of the island, prescribe that the laws and ordinances of Porto Rico now in force shall continue in full force and effect except as altered, amended, or modified hereinafter or as altered or modified by military orders and decrees in force when this act shall take effect, and so far as the same are not inconsistent or in conflict with the statutory laws of the United States not locally inapplicable or the provisions hereof, until altered, amended, or repealed by the legislative authority hereinafter provided for Porto Rico or by act of Congress of the United States, etc.

The following local laws relating to public works were in force when the military government was established in San Juan October 18, 1898:

General laws of public works, June 22, 1881.

Regulations for the application of the general law of public works, June 27, 1881.

Instructions for public bidding, April 17, 1869.

Contracting of public works, June 11, 1886.

General conditions respecting contracts of public works, June 11, 1886.

Regulations for indemnifications to the technical personnel of public works, November 19, 1879.

The law of waters, April 28, 1886.

Road law, June, 1881.

Law of harbors, February 5, 1886.

Railroad laws, December 9, 1887.

Police law of railroads, February 7, 1888.

Eminent-domain law (Expropiacion forzosa), July, 1884.

Under the military government some general orders having force of law were dictated as follows:

General Order No. 15, February 9, 1899, creating the bureau of public works, engineering, roads and bridges, waterworks, etc.

General Order No. 116, August 12, 1899, creating a board of public works controlling the bureau of public works, to which are assigned the following duties:

(a) Construction, repair, and maintenance of the highways and bridges heretofore styled "military roads."

(b) Construction, repair, and maintenance of country roads and bridges.

(c) Construction, repair, and maintenance of public buildings used for civil purposes.

(d) Improvement and maintenance of harbors and establishment of harbor lines.

(e) Supervision and construction of wharves, docks, and slips.

(f) Construction, repair, and maintenance of light-houses and beacons.

Duties and service of the harbor works discontinued and transferred to the board of public works.

General Order No. 131, August 29, 1899, appointment of Capt. W. V. Judson, Corps of Engineers, U. S. Army, as president of the board of public works.

Circular No. 1, March 10, 1899, directing that competent native Porto Ricans be employed in preference to all foreigners for the construction of the public works.

Circular No. 28, August 19, 1899, establishing the rate of 5 per cent of peso per hour for laborers employed in the public works.

Circular No. 32, September 1, 1899, regulating construction of dwellings in towns in accordance with the Spanish Government circular of June 8, 1893.

General Order No. 56, March 13, 1900; General Order No. 63, March 27, 1900; General Order No. 90, April 28, 1900, authorizing the board of public works, subject to regulations therein, to bring condemnation proceedings for the construction of public works.

General Order No. 102, April 30, 1900, transferring the board of public works to the department of the interior.

General Order No. 103, April 30, 1900, procedure in the matter of franchises and concessions within the island of Porto Rico.

On May 1, 1900, the civil government was inaugurated, and after the legislative bodies were organized under the organic act the following legislation concerning the public works was enacted:

March 1, 1902, an act to provide for the protection and policing of the insular highways of Porto Rico, sections 738 to 749 of Revised Statutes.

March 1, 1902, sections 133 to 137, Chapter VI, Political Code, defining power and duties of the commissioner of the interior.

March 1, 1902, sections 247 to 284, district road law dividing the island into 7 road districts, each under a board of three road supervisors, to take care of the vicinal and rural roads of the island.

March 1, 1902, sections 393 to 427 of the Political Code, creation of the present bureau of public works under the control of the commissioner of the interior; defining duties and powers of the commissioner of the interior and the superintendent of public works in relation to the insular public works, defining same and establishing a number of provisions to take place of the old general law of public works for the island of Porto Rico and the rules and regulations of June 22, 1881, for the extension of said law; both repealed by section 427 of the Political Code.

Under prescriptions of section 426 the commissioner of the interior had to prepare a set of general conditions for the contracting of the insular public works to take place of the articles of general conditions enacted by the Spanish Government June 11, 1886.

These set of general conditions were published both in English and Spanish June 30, 1902, as follows:

DEPARTMENT OF THE INTERIOR OF PORTO RICO,
OFFICE OF THE COMMISSIONER,
San Juan, P. R., June 30, 1902.

In compliance with provisions in section 34 of an act of the legislative assembly of Porto Rico entitled "An act to abolish the board of public works, to provide a new organization for the insular public works, and for other purposes," the following general conditions for the contracting of the insular public works have been issued and shall have after publication the force and effect of law as provided in said act.

W. H. ELLIOTT,
Commissioner of the Interior.

GENERAL CONDITIONS FOR THE CONTRACTING OF INSULAR PUBLIC WORKS.

SECTION 1.—*Qualifications of contractors.*

American and Porto Rican citizens and foreigners enjoying civil rights in the island, and companies and corporations duly organized and authorized to do business in Porto Rico, may be contractors of the insular public works, provided they can reasonably prove their ability to successfully carry out the works.

SECTION 2.—*Proposals.*

Proposals for contracting the execution of any public work, or furnishing materials, or for any service relating to public works shall be advertised in general for thirty days. This term may be reduced in urgent cases, but shall never be less than ten days.

SECTION 3.—*Advertisement.*

The advertisement shall be published in the Official Gazette; by posters affixed in the post-offices and alcaldías of the locality wherein the work or the service is to be performed, and in any other places and manner that the bureau of public works may see fit in order to secure as large a competition as possible from responsible bidders.

SECTION 4.—*Contents and form of the advertisement.*

The advertisement shall contain concisely:

1. The kind of work or service to be done.
2. Place, date, and hour of opening the bids.
3. The estimated cost of the work or service.
4. The amount of guaranty to accompany the bid.
5. Instructions as to where to obtain blank forms of proposals and all information relating to the work or service to be performed.
6. Reservations of the right to reject any or all bids.
7. Any other peculiar feature as to letting of the work or service in parts or as a whole.

The following form, modified as may be required, shall be used:

"DEPARTMENT OF THE INTERIOR OF PORTO RICO.

'BUREAU OF PUBLIC WORKS.

"OFFICE OF THE SUPERINTENDENT OF PUBLIC WORKS,
"San Juan, P. R., ———, 190—.

"Sealed proposals for the furnishing of all labor and material necessary for the construction of ——— (here indicate character of work or service to be contracted ———) estimated in the approved project at (——— amount written, and in figures \$———) will be received at this office until (——— date and hour ——) and then publicly opened.

"All necessary information and blank forms for proposals and instructions to bidders will be furnished on application.

"The right to reject any or all bids is reserved.

"(Signature) ——— ———
"Superintendent of Public Works."

SECTION 5.—*Opening of bids.*

The opening of the bids shall take place in the office designated in the advertisement, before a board of award as provided by law, which board shall award the contract, subject to the approval of the commissioner of the interior.

SECTION 6.—*Instructions to bidders.*

A set of provisions under this head, to form part of the contract, shall be made by the superintendent of public works for each particular contract. These instructions shall contain the following:

Invitation to bidders to visit the place and examine the locality and character of the material encountered, in order to make their own estimates, taking account of all possible contingencies in relation to the work.

Statement of the amount and character of guaranty required to accompany the proposal. If a certified check, to whom it shall be made payable. When and where certified checks, except that of the successful bidder, shall be returned.

Qualifications of guarantors.

Proposals to be made in duplicate.

How the blank forms shall be filled.

Alterations by erasure or interlineation to be explained on margin over the signature of the bidder.

When and where bidders shall submit and how they may withdraw proposals before the time set for the opening of the bids.

No bids to be accepted after that time.

Invitation to bidders to be present at the opening of the bids.

Proposal of the successful bidder to be approved by the commissioner of the interior on the recommendation of the board of award.

Reservation to reject any or all bids.

Term given to the successful bidder to enter into contract after the award.

Amount of security.

Qualifications of sureties.

Price for excavation submitted in the bid to be an average price per cubic meter.

Provision for periodical estimates and payments, whether they shall be monthly or for a shorter or longer period.

Time for completion of the work to be stated in the bid; this is an important factor in the awarding of the contract.

Provision that the contractor will not take advantage of any error or omission in the specifications.

Transfer of contract or part thereof prohibited.

Any particular condition that the superintendent of public works may deem it necessary to specify.

Failing contractors, known as such to the bureau of public works, to be excluded.

SECTION 7.—*Guaranty to accompany proposals.*

The guaranty to accompany the bids specified in the particular conditions for the work advertised shall be not more than 5 per cent nor less than 2 per cent of the estimated value of the work. It shall be given in the form of a certified check made payable to the superintendent of public works, to be forfeited to the people of Porto

Rico if the successful bidder does not fulfill the condition of entering into written contract with the superintendent of public works to begin work within the time specified in the particular conditions of the work awarded, which term shall in no case exceed thirty days.

SECTION 8.—*Bond for the good execution of the work.*

The bond for the faithful performance of the contract shall be no less than 10 per cent of the estimated cost of the work awarded. It may be given in money or in government or municipal bonds, to be deposited with the treasurer of Porto Rico, or in personal bonds furnished by two responsible sureties, or by a duly incorporated surety company. Each surety must justify in the sum of 10 per cent of the estimated value of the work.

SECTION 9.—*Agreement.*

The bidder to whom the award is made shall enter into written contract with the superintendent of public works within the time specified in the instructions to bidders. The contract shall be in the form adopted by the bureau of public works, and bidders are to be understood as accepting the terms and conditions contained in said form of contract.

The advertisement, general instructions to bidders, the specifications for the works, and the bonds for the good execution of same shall form part of the contract.

SECTION 10.—*Execution of the work.*

The contractor shall be furnished all plans and documents required for the construction of the work.

The work shall be executed strictly in accordance with the approved plans which are the basis of the contract and upon the lines given therein and staked out upon the ground in accordance with them by the local engineer in charge.

SECTION 11.—*How work shall begin and progress.*

The contractor shall begin work within the time specified in the particular conditions of the contract, and shall push the work so as to complete same on or before the date agreed upon for its completion in the contract. The laboring force, ordinary and skilled, and all suitable appliances for the good execution of the work shall be furnished by the contractor in proportion to the extension and nature of the work and the rate of progress required for its completion. In order that the engineer may be sure of compliance with this provision the contractor shall submit to said engineer whenever required a list of such appliances used and of the force employed.

SECTION 12.—*Engineer may demand increase of force and appliances.*

If at any time before the commencement of the work or during its execution such force and appliances appear to the engineer inadequate to secure either the quality of or the rate of progress required, he may order the contractor to increase the efficiency or improve the character of either or both, and the contractor must conform to such order; but the failure of the engineer to demand such increase of efficiency or improvement shall not relieve the contractor from his obligation to secure the quality of work and the rate of progress established in the contract.

SECTION 13.—*Residence of contractor near the work.*

From the beginning of the work until its final acceptance after completion the contractor or his authorized representative shall reside near the work and give his personal attention to the faithful prosecution of same. And he shall take care to obtain promptly the official correspondence addressed to him at the post-office nearest to the site of the work, as all notifications so addressed to him shall be valid, and he must give notice in writing to the bureau of public works of any change in his address or that of the person who represents him.

SECTION 14.—*Discipline of employees.*

In order to secure good and steady progress of the work the contractor shall maintain at all times strict discipline among his men and must employ the necessary skilled workmen. Any employee who shall appear incompetent, unfaithful, or dis-

orderly, or in any other way disqualified for the work intrusted to him, shall be discharged from the work upon the request of the engineer, and he shall not again be employed in the work.

SECTION 15.—*Materials extracted from properties of public domain.*

Contractors may take and use, free of cost, unless otherwise provided, all materials of the character required for the work which may exist on the lands of public domain, but they are to observe the police regulations in force with reference to said lands, and they shall respect all easement and servitude existing thereon and take all needed precautions not to disturb the free use of said lands. Contractors shall not dispose of materials from quarries not their own property for private use or commercial purposes.

SECTION 16.—*Notification to owners of quarries.*

When quarries are to be opened on private property the contractor shall notify the owner before commencing any quarrying operations, and he shall indemnify the owners for all damages caused by the quarrying, transportation, or storage of the materials, as well as for the establishment of temporary roads and auxiliary plants, such expenditure being considered as contingent to the work.

SECTION 17.—*Origin of materials.*

The contractor is at liberty to take the materials from any place he may choose, provided, however, that said materials comply with all conditions required in the specifications. No material shall be employed before being inspected and accepted by the engineer, and all rejected materials shall be removed from the works.

SECTION 18.—*Contractor to be responsible for the good execution of the work.*

Until the final acceptance of the work is consummated the contractor is solely responsible for the execution of the work contracted for, and if any defective work shall be discovered by the engineer or the agents of the bureau of public works the contractor, after notification by the engineer, shall replace and reconstruct the same at his own expense in accordance with plans and specifications of the contract, and if he refuses to do so the bureau of public works shall have the work done under its direction, the cost and all incidental expenses connected therewith to be paid with money due the contractor, or at the expense of the sureties liable for the good execution of the work.

SECTION 19.—*Demolition of work for examination.*

Whenever so directed by the engineer the contractor shall demolish any part of the work required for an examination after completion or during the progress of the works under contract. If the work so examined is found to be defective in any respect and not in accordance with the contract and specifications, the contractor shall bear all expenses of such examination and of satisfactorily reconstructing the same as required by the engineer in charge.

If the work so examined is found to have been done in accordance with the specifications, the expense of the examination and reconstruction will be paid to the contractor at the prices named in the contract.

SECTION 20.—*Auxiliary works.*

Centerings, false works, and all appliances required for the construction shall be furnished by the contractor at his risk and expense unless otherwise specified in the particular conditions of the contract. The contractor, however, shall follow the suggestions made therein and by the engineer for the security of the workmen.

SECTION 21.—*Inscription on the works—Articles of antiquity and value are the property of the government.*

No inscription shall be put on any parts of the work without proper authorization. All objects of art, old curiosities and minerals, useful for public education, that may be found in the excavations or along the line of the work, shall be considered as property of the insular government, and the contractor shall take all precautions, as directed by the engineer, for their safe extraction and removal, the expenses to be incurred in such work to be paid by the island.

SECTION 22.—*Actual work completed to be paid for.*

The contractor shall be paid for the quantities of work actually completed under the approved project, and for such extra work as may be required of him in writing by the engineer, provided said work is completed in accordance with the specifications. The quantities given in the project shall not constitute any basis for any claims except as provided in these conditions or in the particular conditions of the contract.

SECTION 23.—*Materials of dimensions not specified used.*

If the contractor prefer to use materials of larger dimensions than those specified for the work, and the engineer finds the work acceptable he shall only be paid for the work as called for in the contract. If he uses materials of smaller dimensions, and the work completed is nevertheless accepted, he shall be paid at a proportionally reduced price. Should, however, such work be not found acceptable by the engineer, the contractor shall demolish and reconstruct it in accordance with the specifications at his own expense.

If the increase of dimensions of the materials was ordered in writing by the engineer, the extra cost on account thereof shall be paid to the contractor. In no case, however, shall the contractor use in the work any materials of any other dimensions, weight, or quality than those specified in the contract, unless he has the written authorization of the engineer.

SECTION 24.—*Unit prices comprise all operations and wastes.*

The cost of all operations required for the completion of the work not specially stated in the particular conditions of the project is supposed to be comprised in the price paid for each unit of completed work.

SECTION 25.—*Materials stored near the works.*

Seventy-five per cent of the cost of the materials properly stored near the works may be allowed the contractor in the monthly estimates, provided said materials are of the quality and dimensions required in the specifications; but when said material so stored near the work is accepted and estimated, the contractor can not take it away for any other service unless authorized in writing.

SECTION 26.—*Use of materials belonging to the government.*

If at any time it is thought advisable to use in the work any material belonging to the government, whether new or proceeding from any other source, the contractor may use the same, but he shall be paid only for the labor and transportation of such material.

He shall have no right to compensation for any material not required, unless he can prove that previous to receiving the order he had stored near the works the same amount of material of the quality required in the specifications.

SECTION 27.—*Work of drainage not provided for in the contract.*

When at any time during the progress of the work it becomes necessary to perform any work of drainage not stipulated in the contract, the contractor shall furnish all the necessary labor for its execution, and such labor and expenses shall be paid for outside of the regular contract. To that effect, the contractor shall submit the pay roll of the force employed, and the payment shall be made in the presence of the engineer or of his authorized agent and shall be the amount of expenses incurred in such works and 15 per cent above and over his disbursements, the latter as compensation for moneys advanced and for supervision of the work.

SECTION 28.—*Precautions against accidents.*

The contractor shall, during the progress of the work, use all proper precautions for the prevention of accidents to persons and property. He shall put up and maintain such barriers and lights as will effectually prevent any accident in consequence of his work, and he shall be liable for all damages occasioned in any way by his acts or neglect or that of his agents, employees, and workmen.

SECTION 29.—*Use of patented articles or process.*

The contractor shall be solely responsible for the use of any patented article, process, or appliance in connection with the works contracted, as any payment due to patent holders for such use is supposed to be computed in the prices of the bid.

SECTION 30.—*Extra work.*

Any alteration or changes in the project producing work not provided for in the contract shall be considered as extra work.

No claim for extra work shall be allowed unless such work shall have been previously ordered in writing by the local engineer with approval of the superintendent of public works, and an agreement upon the prices to be paid for such extra work has been reached between the engineer and the contractor, and such prices duly approved.

The claims for extra work, when it is ordered, shall be presented and paid in the next monthly estimate for extra work; otherwise said claims shall be forfeited and waived.

Alterations or changes in the details of the work not entailing new prices shall not be considered as extra work, and the contractor will be required to perform such alterations or changes under the direction of the local engineer at the prices named in the contract: *Provided, however,* That said alterations and changes do not increase the quantities over 20 per cent of the original estimate. For all work in excess of 20 per cent of the original quantities caused by such alterations and changes, the bureau of public works reserves the right to enter into a written agreement with the contractor to execute such additional work upon prices mutually agreed upon, or to have the same carried out by day labor or by any other method it may direct. Should, however, any alterations or changes in the work produce a diminution in the original cost or quantities not reaching 20 per cent, the reduction thus made shall not constitute a claim for damages by the contractor or for profits supposed to be lost by him on the work that may be altered or dispensed with.

SECTION 31.—*Claims for losses or damages.*

No claim will be considered on account of losses, damages, or injuries to the work from any cause whatsoever imputable to neglect, incompetency, lack of proper appliances, or bad management: *Provided, however,* That damages sustained on account of "force majeure" and claimed within ten days from date of the event shall be considered, but no claim shall be admitted after said term of ten days.

The following are the only cases esteemed as "force majeure:"

1. Fires caused by atmospheric electricity.
2. Damages produced by earthquakes.
3. Damages caused by slides of the land on which work is constructed.
4. Damages caused by armies during war, by popular seditions, and tumultuous robbery.

SECTION 32.—*Discharge of contracts.*

The contract may be annulled by the following reasons:

1. In case of death of the contractor, unless his heirs or legal representatives agree to continue the work under the same contract.
2. If for any cause whatever the government sees fit to suspend the work for a term exceeding three months.
3. If the monthly estimates delivered by the engineer are not paid to the contractor for three consecutive months.
4. For failure of the contractor to comply with the conditions stipulated in the contract.

SECTION 33.—*Discharge with guaranty returned and material stored paid for.*

In the first three cases the work constructed shall be provisionally accepted if complying with the specifications, and after the term of guaranty and the final acceptance the contractor shall have all retained percentage returned and his bond canceled.

When the contract is annulled for the above-stated reasons, the materials stored near the work that have been accepted and the tools and appliances considered necessary for the performance of the work shall be paid to the contractor by agreement or at appraisers' prices.

SECTION 34.—*Guaranty forfeited.*

In the fourth case, when the contract has to be annulled through the fault of the contractor because of delay or failure to commence and execute the work or furnish material as specified under the contract, then the percentage retained and the guaranty deposited shall become forfeited to the people of Porto Rico to the amount of 10 per cent of the original estimate of the works.

After the contract is annulled the contractor has only the right to be paid for the work executed in accordance with the conditions in the contract; but he shall forfeit the 10 per cent of the original estimate of the work required under these regulations as guaranty, which, if not deposited in stock or specie, shall be made good against the bondsmen or guarantors, unless the commissioner of the interior, upon the recommendation of the superintendent of public works, sees fit to grant the contractor a new and final prorogation of the term for the completion of the work, after which term, if the work is not completed, the penalty of 10 per cent shall be enforced.

SECTION 35.—*Partial estimates.*

All measurements and estimates as to quantities and value of the work done by the contractor are to be made by the engineer in charge monthly, unless another term is specified in the particular conditions of the contract and in accordance with the prices stipulated; and upon such estimates certified to by the engineer the contractor shall be paid for the work done during the month or the term specified, less the percentage to be retained under the conditions of the contract.

Estimates for extra work must be separately rendered, citing authority under which it was done.

The prices and rates stipulated in the contract cover every contingency connected with the proper execution and completion of the work in accordance with the specifications.

SECTION 36.—*Partial estimates not final.*

The partial estimates and certificates given by the engineer in charge monthly or at the terms specified in the contract are not to be considered final and conclusive, but subject to corrections when the final liquidation is made, after completion and provisional acceptance of the work contracted.

SECTION 37.—*Delays and extension of time.*

Should the bureau of public works during the progress of the work find it necessary to suspend the work for any time not exceeding three months, or should the work be delayed on account of reasons not within the control of the contractor, an extension of time will be given him for the completion of the contract equal to the time lost by such delays, provided he shall make the application in writing to the superintendent of public works at least thirty days before the expiration of the time specified in the contract, stating fully the reasons of the delays in the work and the time to which he requests the completion of the contract to be extended.

SECTION 38.—*Provisional acceptance.*

After the completion of the work on or before the date specified in the contract, or as extended by the proper authority, and after such completion has been duly certified to by the engineer, the work will be provisionally accepted by the bureau of public works and the final liquidation immediately proceeded with so as to pay the contractor within forty days the balance due him to cover 90 per cent of the amount of the work completed, the remaining 10 per cent to be retained, together with the other percentages previously retained from each partial payment, until the final acceptance of the work.

SECTION 39.—*Final liquidation, special estimate, and measurements.*

After the provisional acceptance, the engineer in charge shall proceed to the final measurements and estimates of the works for the final liquidation, notifying the contractor, who is expected to be present in person or represented by an agent.

His failure to be represented shall not give him any right to claim against said measurements.

The basis for the measurements shall be the plans, profiles, and drawings followed

in the staking out of the work by the engineer and the detailed plans prepared during construction.

If necessary the thickness of the metaling shall be verified by test holes made in such number and at such places in the macadam as the engineer may direct.

SECTION 40.—*Final liquidation examined by contractor.*

The final estimates and liquidations made and certified to by the engineer shall be transmitted to the contractor for his examination, and he must within thirty days submit his observations on said estimates and liquidation, his failing to do so implying a consent to the liquidation as submitted by the engineer.

Any errors found shall be corrected, but no other claims against the measurements and quantities or classification (or the method proposed thereby) shall be considered. The decision of the engineer shall be final and conclusive on that matter if his opinion is indorsed by the superintendent of public works.

SECTION 41.—*Final acceptance—Contract finally discharged.*

The final acceptance of the work shall take place at the expiration of the term of guaranty and maintenance of the work by the contractor, as stipulated in the contract, which term in no case shall be less than four months.

If the work is found completed in accordance with specifications and so certified to by the engineer appointed for the purpose, the final acceptance of the work will be declared by the bureau of public works, and when the final liquidation shall have been approved by the commissioner of the interior the percentages retained shall be paid to the contractor and his bonds canceled, his responsibility under the contract having come to an end. *Provided, however,* That the contractor shall give satisfactory evidence of having settled all claims which may have been brought against him on account of work done or material furnished or for damages to landowners during the progress of the work, before said percentages can be paid and bonds canceled.

SECTION 42.—*General clause.*

The foregoing general conditions shall be applied to all contracts for public works, but may be supplemented by special requirements in particular cases.

San Juan, P. R., ———, 1902.

Approved.

W. H. ELLIOTT, *Commissioner of the Interior.*

APPENDIX I.

BUSINESS METHODS OF THE BUREAU SHOWN IN THE CONSTRUCTION OF A SECTION OF ROAD NEAR LAS MARIAS.

To show how the business of the bureau is conducted under the new legislation we give as a recent example the methods followed to let by contract a piece of road of about 4 kilometers near Las Marias, bids for which were opened June 20, 1904.

An allotment of \$30,000 from the "trust fund" having been authorized for the completion of the Mayaguez-Las Marias road, the survey was started October 1 last to select the best location for the untouched portion of the road at Las Marias end.

The field party surveyed the best three possible locations, and the one presenting the more advantageous features in all respects was selected by the director of the bureau. All necessary data were then taken on the field and the project completed in the office in the form prescribed in section 410 of the Political Code.

After the project was duly approved by the commissioner of the interior, as provided in section 409 of the Political Code, bids were advertised to undertake the work in accordance with the following advertisement, instructions, conditions, and specifications. Bids were duly opened before the board of award and the contract awarded to the lowest bidder, Victor Honore, for \$13,224.

The contract was entered into, with the required sureties, and approved by the commissioner of the interior, as shown in the attached copy herewith, previous to beginning work.

ADVERTISEMENT.

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SUPERINTENDENT OF PUBLIC WORKS,
San Juan, P. R., May 24th, 1904.

Sealed proposals in duplicate for the furnishing of all labor and material necessary for the construction of about 4 kilometers of macadamized road in the Mayaguez-Las Marias section will be received at this office until 10 a. m., June 20th, 1904, and then publicly opened.

The cost of the work as estimated in the approved project is under \$20,000.00.

All necessary information, blank forms of proposals, and instructions to bidders will be furnished on application.

The right is reserved to reject any and all bids.

(Signed)

P. F. FERNANDEZ,
Acting Supt. of Public Works.

INSTRUCTIONS TO BIDDERS.

NOTE.—Bidders not conversant with the English language are requested to employ some intelligent person in preparing the subjoined papers and have them properly translated and explained.

Irregularities and informalities which often jeopardize a bid may thus be avoided.

1. The general conditions for the "Contracting of insular public works," issued and printed June 30th, 1902, by authority of the commissioner of the interior, are hereby made a part hereof, except where specially modified by the contract or specifications.

2. Bidders or their authorized agents must visit the place and examine the locality and the character of the material to be encountered, to make their own estimate of the facilities and difficulties attending the work.

3. The guaranty required to accompany the proposal must be in the form of a certified check made payable to the superintendent of public works, and the amount of said check shall be five hundred dollars (\$500.00).

4. Certified checks will be returned after a decision as to the contract has been made by the commissioner of the interior, that of the successful bidder, however, not until the execution of the contract.

5. No proposal will be considered unless accompanied by the required guaranty, and all bidders must satisfy the bureau of public works of their ability to furnish the material and perform the work for which they bid.

6. A firm as such will not be accepted as a surety on a bond for any of its members, nor a partner for a copartner of a firm of which he is a member. Stockholders, who are not officers of a corporation, may be accepted as sureties for such corporation.

7. When the principal, or a surety, is an individual, his signature to a bond shall have affixed to it an adhesive seal. Corporate seals will be affixed by corporations. All signatures to proposals, contracts, and bonds must be written in full, and each signature must be attested by one witness.

8. A proposal by a person who affixes to his signature the word "president," "secretary," "agent," or other designation, without disclosing his principal, is the proposal of an individual. That by a corporation should be signed with the name of the corporation followed by the signature of the "president," "secretary," or other person authorized to bind it in the matter, who must file evidence of his authority to do so. That by a firm should be signed by the firm name, either by a member thereof or by its agent, giving the names of all the members of the firm. Anyone signing the proposal as the agent of another or others must file with it legal evidence of his authority to do so.

9. The place of residence of every bidder and post-office address must be given after his signature.

10. All prices must be written as well as expressed in figures, but written prices shall control where they differ from the figures.

11. A copy of the advertisement, the instructions to bidders, and the specifications, all of which can be obtained at this office on application, must be securely attached to each copy of the proposal and be considered as comprising a part thereof.

12. All blank spaces on the proposal and bond must be filled in, and no change shall be made in the phraseology of the proposal or addition to the items mentioned therein. Any condition, limitations, or provisos attached to proposals will render them informal and may cause their rejection.

13. Alterations or erasures must be explained or noted on the margin opposite and be attested by the signature of the bidder.

14. If a bidder wishes to withdraw his proposal he may do so without prejudice to himself by communicating his purpose in writing or by telegraph to the superintendent of public works not later than one hour before the time fixed for the opening of the bids. His proposal shall then remain unopened and shall be returned to him or his authorized agent.

15. Bids submitted by different members of the same firm or copartnership shall not be considered.

16. Proposals received after the time set for opening the bids will be returned unopened.

17. Proposals must be placed in a sealed envelope, marked "Proposal for the construction of about 4 kilometers of road, between Mayaguez and Las Marias, to be opened 10 a. m., June 20th, 1904," and enclosed in another sealed envelope addressed to the superintendent of public works, San Juan, P. R., but otherwise unmarked. It is suggested that the inner envelope be sealed with sealing wax.

18. The board of award reserves the right to reject any and all bids and to waive any informality in the bids received; also to disregard the bid of any failing bidder or contractor known as such to the insular government.

19. The bidder to whom the award is made will be required to enter into written contract with the superintendent of public works with good and approved security to the amount of fifteen per cent (15%) of the contract price of said work within ten (10) days after notification of the acceptance of his proposal. Should he fail to do so his certified check will become forfeited under the law and the amount will be turned into the treasury of the island.

20. One copy of the bond accompanying the contract must have internal-revenue stamps affixed to the value of one dollar, and if given with a guaranty company as surety, must have affixed, in addition to the one dollar stamp, stamps denoting one-half of one cent on each dollar, or fractional part thereof, paid by the obligor as a premium, and the amount of said premium must be certified to by said guaranty company.

21. The sureties, if individuals, must be residents and property holders of Porto Rico, and are to make and subscribe affidavits of justification on the bond to the contract. Each surety must justify in the full sum and amount of the guaranty and penal sum named in the bond.

22. Bidders are invited to be present at the opening of the bids at the time specified in the advertisement.

23. No bid will be accepted or contract entered into until approved by the commissioner of the interior.

24. Transfers of contracts or of interest in contracts are prohibited by the law and will not be allowed.

25. The contractor will not be allowed to take any advantage of any error or omission in the specifications, as full instructions will always be given should such error or omission be discovered.

26. A copy of the advertisement, the general conditions for the construction of insular public works, general instructions and specifications will be attached to the contract and form a part thereof.

SPECIFICATIONS.

CONDITIONS AND REQUIREMENTS.

27. The contract will be for the entire completion, within five months, of a portion of the Mayaguez-Las Marias road, covering a total length of about four (4) kilometers, and the subsequent maintenance of same for a period of four (4) months.

28. The work will consist of excavating, transporting to any distance, filling, grading, ditching, sloping, and trimming all necessary earthwork; furnishing, placing, and rolling the required quantities of broken stone and screenings for the macadam road-bed; the construction in specified classes of masonry, or brick, or concrete of the necessary bridges and culvert with abutments, and of drains, retaining walls, slope walls, paving, drain pipe, etc., including the erection of false work, scaffolds, forms, cofferdams, or dikes necessary during their construction; and the furnishing of all labor, material, paint, tools, and machinery required for the execution of the whole work; all in conformity with the plans furnished and directions given by the bureau of public works and the specifications herein described in detail and the prices named for each item in the accompanying contract.

29. The quantities stated in the proposal are fairly approximate, but bidders must satisfy themselves by personal examination of the plans and locality of the correctness of the approximate estimate furnished.

30. *Alignments grades, etc.*—The work shall be strictly executed in accordance with

the original plans, profiles, and cross sections furnished by the bureau of public works, which are hereby made the basis of the contract, and upon the lines given therein and staked out upon the ground in accordance with them by the local engineer in charge.

31. The contractor shall carefully preserve all bench marks and stakes given or set by the local engineer in charge, and in case of his neglecting to do so, will be charged with the expenses of resetting the same.

32. *Extra work.*—No claims for extra work shall be allowed unless as provided under section 30 of the general conditions.

33. No allowance or compensation whatever shall be due or paid the contractor for any temporary roads, bridges, trestles, or any other plant he may erect or use in order to facilitate the work unless as provided in these conditions and in the project.

34. *Delays.*—Nothing herein contained shall be construed into a liability of damages, and in no event shall the contractor claim or have a right to extra compensation or price for damage arising from any suspension or delay in the prosecution of the work from any cause whatever; it being, however, understood and agreed that the contractor shall have such extension of time for the completion of the work embraced in this contract as shall be determined by the bureau of public works and approved by the commissioner of the interior as is equal to the time lost by delays which may have been caused by acts or omissions of the insular government or on account of failure to secure the right of way or from any other reason not within the control of the contractor; provided, he shall give notice of the existence of such delays, detention, or cause of hindrance, in writing, to the bureau of public works within five (5) days after the same shall first occur.

35. *Extension of time to complete contract.*—If by reason of an increase in the amount of work through the occurrence of accidents, strikes, riots, or violence of the elements, or, in general, through acts of force majeure, the progress of the work has been delayed to such an extent that it will be impossible for the contractor to fulfill the condition as to time specified for its completion in this contract, he must make application to the bureau of public works in writing for an extension of time, stating fully the reasons of the delay in the work and the time to which he requests the completion of the contract to be extended. The application is to be made at least thirty (30) days before the expiration of the time specified in the contract.

Should the time for the completion of the contract be extended, all expenses for inspection and superintendence during the period of the extension as allowed by the bureau of public works shall be deducted from payment due or to become due the contractor; provided, however, that if the party of the first part shall, in the exercise of his discretion, because of local or State quarantine restrictions, freshets, or other force or violence of the elements, allow the contractor additional time in writing, as provided for in the form of contract, there shall be no deduction for the expenses for inspection and superintendence for such additional time so allowed; provided further, that such allowance or extension shall in no manner affect the power of the party of the first part to annul the contract adopted.

36. *Payments.*—Payments will be made monthly, from which 10% will be retained until the work is finally accepted at the expiration of the time set for obligatory maintenance.

The nature of this contract is such that the provision in the general conditions for contracting of insular public works for an advance payment of 75% of the value of materials stored and not placed will not be considered and shall not be applied in this case.

37. *Measurements and estimates.*—All measurements and estimates as to quantities and value of the work done will be made by the local engineer in charge in accordance with customary rules of measuring and the amounts, designation, and prices stipulated in the contract, and will be certified to by him on prescribed blank forms for monthly estimates and forwarded to the superintendent of public works as soon as possible after the close of each month.

The contractor or his agent shall be present when the monthly measurements are being made, and he will subscribe his conformity to such measurements, any difference to be settled on the spot or by appeal without delay to the superintendent of public works.

These measurements shall thereafter form the basis for the calculation of all work performed by him under the contract and make remeasurements or new surveys unnecessary after the completion of the work for the final settlement.

However, the monthly estimates rendered will not be considered final until the local engineer in charge has submitted his final report and certificate at the close of the work; such estimates remain, therefore, in the meantime subject to correction, if needed.

38. *Material*.—All materials furnished and used under these specifications must be of the best quality of their respective kind, free from any and all defects which in the opinion of the local engineer in charge would render them unsuitable for the work.

Only the material actually placed and left in the work and accepted shall be paid for, the contractor losing all wastage and retaining possession of all surplus materials left on the completion of the work, the bureau of public works reserving, however, the right to purchase such remaining materials at cost price if it shall deem it advantageous to do so.

39. *Protection of property and traffic*.—The contractor shall construct or restore, at the expense of the bureau of public works and at the rates stipulated in the contract, all private roads, crossings, culverts, drains, ditches, roadways, and approaches that may have been changed, obstructed, or made inaccessible before or after the commencement of the work, and he shall maintain at his own expense a good and sufficient passageway for travel of horses, or for carts, if possible, at each point where the new road traverses any portion of an old road or trail which is temporarily obstructed by the progress of the work.

The bureau of public works agrees, however, to furnish free of cost to the contractor the necessary right of way and such land as may be permanently occupied by the new road and its auxiliary structures.

40. *Settlements of claims and liens*.—The contractor will be required to hold the insular government harmless against all claims for the use of any patented article or process of appliance in connection with the contract herein contemplated, and will be held responsible for the prompt settlement of all claims or liens which may be brought against him on account of work done or material furnished under this contract by any person or persons who have given notice of such claims to the bureau of public works before the final acceptance of the work.

41. *Payment of laborers employed on the work*.—The attention of contractors for public works is called to the law enacted by the last legislature limiting the maximum length of a working day to eight (8) hours for all work paid out of public funds. Said law is in force from March 10th, 1904. Payments for labor and other services rendered under public contracts shall be made by the contractors in the money of the United States or in bank checks of recognized validity, payable on presentation.

42. *Provisional acceptance*.—The provisional acceptance shall take place after the completion of the entire work if the engineer in charge reports that all work has been finished in accordance with the plans and specifications. The superintendent of public works shall notify the contractor in writing of the official acceptance of the work and the date on which same is accepted, after which all provisions under section 38 of the general conditions forming part of this contract shall be complied with.

43. *Obligatory maintenance*.—The term of guarantee and maintenance of the work shall be four months from the date of the provisional acceptance by the bureau of public works.

The road will be opened for traffic after it has been provisionally accepted, and the contractor will be required to maintain it at his own expense for the period mentioned.

He is to restore to grade all settlements in embankments and in the roadbed, and to repair to the original dimensions all damage and cutting of slopes, drains, ditches, and macadam done by rains or running water, and to replace or rebuild all defects in any of the auxiliary works for all or any of which the contractor can be held directly responsible.

The bureau of public works agrees, however, to remove all landslides that may occur during the period of obligatory maintenance; provided, the contractor or his agent has given prompt and immediate notice to the district engineer; the bureau further agrees to pay, at the price named in the contract, for any macadam supplied by the contractor for repairing damages or wear caused to the roadbed on account of traffic in that time.

44. *Final acceptance*.—The final acceptance shall take place at the expiration of the term of guaranty. An inspection will be made of the entire work by an agent of the bureau of public works; and if all works are found in good order and in conformity with every provision and condition of the contract and specifications, the final acceptance will be declared by the bureau of public works and the contract finally closed in accordance with provisions in section 41 of the general conditions.

45. *Cross section of the formation*.—The cross section of the portion already completed of the Mayaguez-Las Marias road shall be adopted for this portion as follows:

For fills or embankments: Width at the height of grade between edges, 5 meters; slopes, $1\frac{1}{2}$ base to 1 height; the width at top may be increased specially in curves when so directed by the engineer in charge.

For side cuts: Width at top or height of grade, 5 meters plus the variable width of the side ditch in accordance with the nature of the ground; the slopes of the cut to be one (1) base to one (1) height for earth, and up to four (4) height for hard ground, according to degree of hardness as the engineer will direct.

For through cuts: The width of five (5) meters between edges of the side ditches will be increased with the variable widths of said side ditches, the slopes to be as specified for side cuts. In each particular case the exact widths will be determined and staked out by the engineer in charge.

The side ditches shall have (0.30) thirty centimeters at the bottom; (0.30) thirty centimeters depth, and the width at the top will vary, in accordance with the slope required by the nature of the ground, from (0.90) centimeters down to (0.45) forty-five centimeters.

46. *Grading to grade line.*—Under this head will be included the making in the rough of all excavations and fills for the roadbed to the heights and points of reference shown on the plans and profiles furnished.

47. *Special grading.*—For ditches, foundations, drains, water courses, cross drains, berms, terraces, shoulders, and box for macadam will be done afterwards, as specifically directed and provided for, and at the respective prices, if any, named in the contract, or at the contract price for excavation.

48. *Excavations.*—All excavations will be measured and paid for by the cubic meter at the price named in the proposal and without classification. The price therefor is to include the clearing and grubbing of the ground of all trees, plants, buildings, fences, loose soil, and other debris to the full width at the base of embankments and wherever required, the cost of removal and transportation of the excavated material to any point and distance designated, and the depositing of the same in embankment, fills, and waste piles, except as otherwise specified herein.

The contractor will be permitted to use rock, gravel, sand, or any other material suitable for his work or works and excavated between the authorized lines of the road without any deduction from the estimates for the value thereof, in return for which he shall deposit, when so ordered by the local engineer, at convenient points along the road, any or all those materials in reasonable amounts for use by the bureau of public works, and at no time can he remove, sell, or store such materials for commercial purposes.

The price paid for excavation in water shall apply only to foundation pits under water and the deepening of channels in running water, regardless of the kind of material excavated, and covers all incidental expenses connected therewith.

Excavation in excess of the cross sections as shown on the original plans or as authorized by the local engineer, as well as slips or subsidences extending beyond the slope lines, shall not be paid for, unless, in the judgment of the engineer such are due to causes which are not the fault of the contractor or his agents. In such cases the surplus material shall be removed and the contractor paid the actual expenses of removal.

If springs of water-bearing strata are encountered in cuts, the contractor shall, at his own expense, make temporary provisions during the progress of the work to carry the water out of the cut and from the roadbed until the regular drainage is provided for.

The total in estimating quantities of all excavations must be rendered in units, reducing or allowing fractions less or more than one-half cubic meter, respectively, to the nearest cubic meter.

Where the quantities of excavation exceed the amounts necessary to make up contiguous embankments to the standard cross section, the surplus material shall be used, if it can be done without detriment to adjoining private property, in widening these embankments on one or both sides, or it shall be deposited at such points as the local engineer in charge may direct, provided the distance it is transported does not exceed three hundred and thirty meters.

49. *Fills and embankments.*—All fills are to be made of suitable material in horizontal layers not more than two feet thick spread across the full width of the embankments and to the true slope. No after filling from the top will be allowed.

If rock is used, no pieces larger than two-tenths of a cubic meter in size shall be placed in embankments which are less than three meters in height; but larger pieces may be used, up to within one-half meter, below grade in fills exceeding that height in the base and at the foot of slopes which are liable to be washed by adjacent water courses; that spaces and voids between the larger stone are filled in by hand with spawls or other fine material, moistened or rammed if necessary.

All fills over bridges, culverts, masonry, or concrete pipe, drains, and walls, and behind abutments and wing walls, shall be made in layers not more than one-tenth meter in thickness, and shall be well rammed and tramped if of earth, and well

packed by hand if of stone. At no time, however, shall these fills be made until the local engineer has decided that these structures are in a proper condition to receive them,

If fills or embankments are to be constructed upon side slopes having a greater inclination than one in five, the contractor will be required to cut steps or terraces not less than one meter wide into the slope for a footing for the material to be deposited upon the same, at such points as the local engineer will direct, the price therefor to be that for excavation.

Proper allowance must be made in constructing embankments or fills for shrinkage due to the character of the material used therein, and for any possible settlement or compression of the subsoil by the superimposed weight. If the latter is boggy, or contains water, stagnant or running, the same provisions must be made by temporary drains before the material is placed thereupon, as described in paragraph 49, for cuts.

Ample time must be given to all fills and embankments to settle and to become consolidated before the macadam is placed thereon.

50. *Slopes* shall be cut, trimmed, and finished according to profiles and stakes given by the local engineer. All loose stone and stumps of trees therein shall be promptly removed, together with all overhanging trees, bushes, and plants growing within a one-meter rayon along the upper edges of the slope. The contractor and his agents will be held responsible, however, for the accidental or intentional disturbance or removal of any of the slope stakes set by the local engineer, and he shall be paid for all expenses resulting from such neglect.

Berms in the slopes shall be cut at such points and of such dimensions as the local engineer may direct, the price therefor to remain the same as that for excavation.

51. *Ditching*, as such, will be paid for by the lineal meter if less than one meter in width across the top and one-half meter in depth. It will embrace the changing and regulating of small water courses at and near the inlet and outlet of culverts and drains, the excavation of material for low embankments from side ditches, and the cutting of all catch-water drains in slopes and along the upper edges of slopes consisting of earth or loose material.

All material excavated from cuts or ditches, when not otherwise disposed of, must be deposited not less than two meters from the edges of cuts and ditches, respectively.

Ditches cut along the upper edges of slopes, when ordered by the engineer in charge, shall be placed no less than one meter from the slope stakes, and must be given sufficient size and grade to drain the adjacent heights properly.

52. *Borrow pits* shall be opened and cross sectioned where the engineer in charge may direct, and the material obtained therefrom will be paid for as excavation. It is presumed, however, that the quantities as shown on the profile are properly balanced for the construction of all fills and embankments without recourse to borrow pits. Should the contractor, therefore, for his own convenience, prefer to obtain the material in a manner different than that specified and authorized, he shall not be allowed to present any claim for excavation thus made.

ROADBED.

53. *Cross section of roadbed*.—After the principal excavation has been done and the bottom of cuts and the top of embankments have reached the grade line, the roadbed will be prepared and finished in the manner shown on the cross section approved for this road, with such modifications as the local engineer has authorized or may have been ordered to make. This embraces the excavation of two ditches along each side of the roadbed proper, in through cuts, and of one ditch on the inner or slope side cuts, all of proper and sufficient dimensions; the excavation of the box to receive the macadam, and the construction of the so-called *banket* or sidewalks between the macadam and ditches.

Wherever it is possible, the box for the macadam must be cut out of the natural ground, with the required slopes from center to sides, to obtain for the macadam, as herein specified, the proper crown and slopes.

The bottom of the box shall be compacted and rolled when in soft material before macadam is placed therein, sloping in both directions from the center, as above stated.

54. *Macadam*, after being placed and rolled, shall be not less than fifteen (15) centimeters in thickness, the section having, when finished, a transverse slope in both directions from the center of about four per cent, or one-half inch to one foot. The above dimensions may be increased or reduced with the approval of the superintendent of public works, if good reasons are shown for doing so by the local engineer.

The broken stone used shall be laid in one course, the quality of the stone to be the best obtainable along the road and as approved by the local engineer.

The course shall be no less than 15 centimeters of stone, broken into cubes, from three to five centimeters thick in any direction.

All stone varying more than twenty per cent from the above dimensions in any one direction will be rejected. It is also preferred that the stone be broken by hand.

The stones shall be rolled with a roller weighing not less than four (4) tons until no movement is observable in the mass in front of the roller, the rolling to begin at the sides and to continue towards the center until a satisfactory consolidation has been obtained.

No rolling shall be done until the subbed is thoroughly dry.

55. *Telford pavement and cross drains* shall be laid or provided at all such points where the bottom of the box receiving the macadam is upon wet or clayey soil, and where the local engineer has decided that any one of these supplementary works are necessary.

For telford pavement, blocks of stone not less than twenty centimeters high, ten centimeters thick, and twenty-five centimeters wide shall be set on their broadest edges, firmly and close together, upon the prepared roadbed, the top of the pavement to be on a level with and of the same grade as the bottom of the box for the macadam. Any spaces between the blocks must be filled with spawls and chips, driven in with a rammer or hammer, until all interstices are properly closed and the top presents an even surface.

Cross drains will be cut into the subbed when ordered by the local engineer, and are generally about twenty centimeters wide and about fifteen centimeters deep, leading from near the center of the road in both directions towards and into the side ditches, with sufficient fall for drainage. They are to be filled, before being covered up by the macadam, with broken stone, both excavation and stone to be paid as per prices named in the contract.

56. *Screenings*.—After the course of macadam has been properly rolled and compacted, screenings of the same kind, or of the residue obtained in breaking stone, or of coarse sand or gravel, or of any other material acceptable to the local engineer, shall be used as a top dressing.

The screenings must be placed and rolled in wet weather, or they may be sprinkled or saturated with water whilst being rolled, but not to such an extent that the water will reach the subbed of the macadam. The rolling must be done with a road roller weighing not less than four tons, and must be continued until only small quantities adhere to the wheels of the roller in passing over the screenings.

The quantity of screenings to be spread depends upon the material used for that purpose and upon the kind of stone used for macadam, and may be increased or reduced as the local engineer may decide. The final depth of the dressing after being thoroughly compacted should be about one centimeter.

57. *Measuring macadam and screenings* shall be done before the material is placed on the roadbed, either in well-packed symmetrical piles stored along the road or in ganged and numbered carts, whichever in the judgment of the engineer in charge will be most convenient. The material, before being measured, must be free from all refuse and foreign matter and of the proper size and quality as specified and approved. Only the quantities so measured and accepted will be paid for by the cubic meter at the contract prices.

58. *Side ditches* must vary in width in accordance with local requirements, and will be paid for as specified. Their longitudinal slope will be generally that of the roadbed, unless otherwise directed; but if through loose, soft soil upon a steep grade their bottom and sides may be protected by dry paving or by constructing terraces of flat stones at certain intervals, as may be ordered, this work to be paid for as dry paving.

MASONRY.

59. *Cuiverts, bridges, abutments, pipe drains, retaining and slope walls, and similar structures* shall be constructed in accordance with the special plans furnished by the bureau of public works. The contract price for each includes complete erection and all incidental expenses connected therewith; also the erection and removal of temporary plant and road crossing, and the clearing of the ground of surplus material and debris.

They will be built, wholly or in part, of masonry and concrete, as shall be directed, and will be paid for as classified and stipulated in the contract, all material therefor to be first inspected and approved by the local engineer before it is used.

60. *First-class masonry* shall consist of coping and other stone, cut and dressed on all sides, and of rock-faced ashlar work laid in regular horizontal courses having

parallel beds and vertical joints and of not less than twenty-one (21) nor more than seventy-six (76) centimeters in thickness, the courses to decrease regularly in thickness from the bottom upward.

61. *Second-class masonry* shall consist of broken range rubble work laid with horizontal beds and vertical joints on the face.

62. *Third-class masonry* shall consist of rustic or rag rubble work dressed to make close joints.

63. *Foundation stones*, if no concrete is used, must not be less than twenty-six (26) centimeters thick, and each stone shall contain not less than nine-tenths (0.9) square meter surface.

64. *Brick masonry* shall be constructed where directed in connection with either concrete or other masonry structures, and shall be paid as brickwork.

65. *Mortar*.—All masonry shall be laid with close-fitting joints, not over one-half centimeter wide and not less than ten centimeters deep at the face, filled and flushed with cement mortar made in the proportion of one part Portland cement to three parts of clean, sharp sand, loose measure, used immediately after being mixed to the proper consistence. About one per cent of lime may be added to the mortar used in third-class masonry, rubble walls and backing, and retaining and slope walls.

Mortar used for pointing face joints must be of the proportion of one cement to two sand.

66. *Rubble backing*, where necessary, will be classified as third-class masonry, and shall consist of stone of good quality and size and shall be laid in such a manner as to form a good bond in every direction, all courses to be thoroughly grouted before the succeeding course is laid, so that no voids are left in the walls.

67. *Work on masonry* of any kind laid in cement mortar shall, when once begun, be carried on with great caution to avoid, by hammering or shocks and blows, the breaking of the work already set or partly set. The local engineer may order the removal of any or all parts of the works so damaged for the purpose of reconstructing it at the contractor's expense.

All unfinished structures shall be well protected against the weather and trespassing during the suspension of actual operations and during the night. Before work is resumed after having been interrupted for more than two (2) hours, the unfinished portion must be wetted and grouted with pure cement mortar to form a good bond with succeeding work.

68. *Retaining and slope walls* shall be constructed in accordance with drawings furnished and at such points as the bureau of public works shall direct. They will be laid dry or in lime or cement mortar, as the engineer may direct, and will in the latter case be classified as third-class masonry and conform in every respect to the specification as given above for that class of work.

69. *Dry walls* shall be laid closely and with care and be of large stone of good quality selected for that purpose. The use of small spalls must be avoided as much as possible, and the foundation must be prepared as directed by the local engineer.

When required by the local engineer, all walls must be backed with small broken stone and provided with suitable outlets for the drainage or seepage, and small water courses behind them.

70. *Sloping and trimming* of all banks and slopes and the digging of foundations and refilling of all excavations necessary for the construction of all slope walls, retaining walls, and dry walls will not be paid for separately, the work to be included in the prices paid for each class of work, respectively.

71. *Riprap* shall consist of stones not less than three hundredths (0.03) of a cubic meter in contents and must be closely laid, the larger stones to be used at the foot of the apron.

72. *Paving* for culverts, drains, and ditches shall be laid dry or grouted, as directed by the engineer, and will be made of stone set on edge and from twenty-one (21) to forty (40) centimeters in depth.

73. *Wheel guards* shall be made of hard, durable stone, selected and approved by the engineer in charge, and shall be cut in accordance with dimensions and sketch furnished by the bureau of public works, the price to include delivery and setting of them at such points as the local engineer will indicate.

CONCRETE WORK.

74. *Concrete* shall be composed of Portland cement, sand, and broken stone or gravel of the qualities and quantities hereinafter specified.

75. *Cement*.—No cement will be allowed to be used except of established brands of high-grade Portland cement which have been made by the same mill and in successful

use under similar climatic conditions to those of the proposed work for at least three years.

Tests and inspection of the cement will be made in accordance with the rules established by the American Society of Civil Engineers, copies of which can be had by applying to this office; and all cement not coming up to these requirements, after having been transported to or stored at the place of the work, shall be rejected and shall be removed at the contractor's expense.

Approval must be obtained from the bureau of public works for the substitution of one brand for another if, for the time being, only insufficient quantities of the authorized brand are available and the progress of the work might be delayed.

76. *Sand* shall be clean and sharp and shall pass a No. 12 sieve. If necessary, the engineer in charge can order it to be washed or screened, or both. If good bank or river sand can not be obtained, the substitution of so-called fine Tosca will be permitted after mortar tests made with the same before it is used in the works have given satisfactory results.

77. *Stone for concrete* shall be of a quality to be approved by the engineer, and of the size called for in each particular case, and must be free of dirt and fine screenings before being used. Good, clean, sharp gravel may be taken in the place of the broken stone, of the proper size and in proportionate quantities to produce the same relative strength in the concrete, when this has been authorized by the bureau of public works.

78. *Mixing concrete*.—The sand and cement shall first be thoroughly mixed dry until of a uniform gray color and shall then be spread out on a mixing platform. Then the stone of larger size, having first been dampened, shall be evenly spread over the mixed sand and cement. Then the stone of smaller size, having first been dampened, shall be evenly spread over the larger stone. The entire mass will then be turned over not less than three (3) times, with the gradual addition of water, until thoroughly mixed and appearing like wet earth. The amount of water to be used shall be all that the concrete will carry without quaking under the rammer.

Concrete shall be turned in low piles and never piled up so that stone will roll down the sides, and the mixing shall continue until satisfactory to the engineer or inspector, who in all cases will decide when it is fit to be placed.

79. *Placing concrete*.—After being prepared, the concrete will be immediately placed in position and thoroughly rammed until it flushes all over the surface. No concrete that has begun to set will be allowed to be placed in the work; retempering will not be allowed. When required, a mortar surface must be worked against the forms while the concrete is being placed and rammed, the plastering to be paid as concrete.

After placing it, all concrete shall be protected from rain for twenty-four (24) hours, and from the direct rays of the sun, by keeping it wet and damp for eight (8) days.

80. *Proportion of mixtures*.—Concrete in exposed walls, or placed in water, shall be mixed in the proportion of one (1) of packed cement, two (2) parts of sand, three (3) parts of thirteen-millimeter stone, and six (6) parts of fifty-one millimeter stone.

Concrete under ground, not exposed and not placed in water, may be mixed in the proportions of one (1) part of packed cement, three (3) parts of sand, $4\frac{1}{2}$ parts of thirteen-millimeter stone, and nine (9) parts of fifty-one millimeter stone.

Concrete for arch rings, cornices, mouldings, bridges, seats, etc., shall be mixed in the proportion of one (1) part of packed cement, two (2) parts of sand, two (2) parts of eight-millimeter stone or sharp gravel, and three and one-half ($3\frac{1}{2}$) parts of twenty-five millimeter stone.

81. *Monolithic work*.—Where monolithic work is called for on the plans or by the engineer, every batch must be deposited on the previously deposited batch or batches before the latter have had time to set. If necessary, the work will be carried on continuously (by three eight-hour shifts) to obtain this result.

82. *Exposed surface of concrete*, when not specially required to be plastered, shall be pointed and floated with thin cement grout well rubbed on and made in the proportion of one cement to two of fine, sharp sand, without extra charge.

At any time the engineer is not satisfied with the contractor's method of measurements he may require the measurement to be made in boxes or barrels.

83. *Concrete drainpipe* shall be made monolithic of concrete in accordance with detailed drawings furnished, and in two sizes of eighty and sixty centimeters clear inside diameter, respectively, and will be paid for by the cubic meter. The thickness of the shell and the length of the pipe will vary with the height of the embankments placed over them.

If soft, porous soil, the pipe will be laid upon a bed of concrete twenty-two centimeters thick, or more if necessary, or upon a bed of well-rammed broken stone, paid as such, and of a thickness as may be designated by the local engineer. In hard, dry soil the pipe can be laid or built directly into the bottom of the trench.

Both ends of the pipe shall be chamfered, to conform to the slope of the embankment, or they shall be finished with small concrete or masonry face walls, as the engineer may direct, and to be paid as such, respectively, and to be built of the dimensions as shown on the drawings.

The concrete used in pipes shall be mixed in the proportion of one part packed cement, two parts of clean, sharp sand, and five parts of stone broken to two and one-half centimeters in size. Good sharp gravel of the same size and proportion may be used in the place of broken stone where it can be more readily obtained.

The concrete and masonry for the face walls shall be of the same kind and composition as specified for similar work in other parts of these specifications.

TIMBER AND PILING.

84. *Wooden bridges* may be substituted with the authority of the bureau of public works in the place of masonry or concrete culverts of the size herein specified, in which case special plans will be furnished, the prices to be paid for this class of work to be those named in the proposal herewith.

85. *Timber in foundation* includes all lumber left in the ground after foundations have been constructed, and which forms a necessary part of the same, as grillages, braces, caps, etc., and which is over five (5) centimeters in thickness in the smallest direction.

86. *Timber for bridges* includes all permanent pieces of any dimensions forming constituent parts of the same, from the foundations up, in abutments, piers, trestles, cribs, and in the superstructure.

All timber will be measured and paid in accordance with the actual quantity used and placed and must be of the best obtainable quality, and before accepted is to be rigidly inspected by the engineer in charge.

87. *Piles for foundations* shall be of the required length and size as specified in each case and of such kind and quality as the local engineer may approve. Only the actual lengths left in the work after they have been driven to the satisfaction of the engineer will be paid for at the price agreed upon, which is to include all incidental work connected with placing, driving, and trimming them.

IRON.

88. *Iron braces*, ties, washers, bolts, spikes, and nails used in the construction of bridges and permanently left therein will be paid for by the kilogram at the price named in the contract. All iron used in the erection of temporary scaffolds, centers, forms, frames, boxes, shoring, cofferdams, or other auxiliary plant will not be paid for, and the contractor will be required to offer every facility in ascertaining the correct weights used as specified.

89. *Bridge across Arenas River.*—The bridge consists of a single iron span 11.60 meters long, supported on two stone masonry abutments. The iron structure is formed on two lateral trusses carrying the roadway between their lower chords. The trusses are composed of pin-connected panel units of the system called "extendible bridge." Each panel unit is two meters (2) long and two twenty-five (2.25) mts. in height, except the end panels which are only eighty centimeters (0.80) long. The trusses are connected at the bottom with horizontal wind bracings. The flooring consists of planks fastened to the longitudinal and transverse girders.

The contractor will be required to do all necessary transportation of the material for the bridge from the public works warehouse at Ponce to the site where the structure is to be erected. He shall furnish and place all timber fastenings and all necessities for the complete erection of the structure, and shall build and launch the structure as directed by the engineer in charge of the work.

All surfaces shall be painted with two coats of approved paint, and before any paint is applied all surfaces must be perfectly clean, all rust and scales being previously removed with proper tools.

ADDITION.

90. *Special condition.*—The contractor will be required to observe strictly the law recently enacted and in force from March 10th, 1904, limiting the maximum time for a working day at eight (8) hours in all work performed and paid out from funds of any dependency of the people of Porto Rico.

PROPOSAL.

June 20/04.

To the Superintendent of Public Works, San Juan, Porto Rico.

SIR: In accordance with your advertisement dated June 6, 1904, inviting proposals for the construction of about 4 kms. of macadamized road in the Mayaguez-Las Marias section, and subject to all the conditions and requirements thereof, and of your instructions to bidders and specifications dated June 6, 1904, copies of all of which are hereto attached, and, so far as they relate to this proposal, are made a part of it, we (or I) propose to furnish the material and do the work required in the section of the road named therein, situated between Mayaguez and Las Marias, at the prices named below, viz:

Approximate quantities.

1. Excavation for all material not classified, eighteen thousand and five hundred (18,500) cub. m., at seventeen cents (\$0.17) per cub. m.
2. Excavation in water, thirty (30) cub. m., at one dollar (\$1.00) per cub. m.
3. Excavation of drains, ditches, and water courses, five thousand eight hundred (5,800) lin. m., at ten cents (\$0.10) per lin. m.
4. Broken stone macadam, measured before placed in the road, three thousand four hundred (3,400) cub. m., at one dollar forty-nine cents (\$1.49) per cub. m.
5. Screenings, measured before placed in the road, four hundred and thirty (430) cub. m., at ninety-five cents (\$0.95) per cub. m.
6. Stone laid dry, thirty-five (35) cub. m., at three dollars (\$3.00) per cub. m.
7. Second-class masonry, five (5) cub. m., at fifteen dollars (\$15) per cub. m.
8. Third-class masonry, one hundred and ninety (190) cub. m., at eight dollars fifty cents (\$8.50) per cub. m.
9. Paving laid dry, thirty (30) sqr. m., at one dollar (\$1.00) per sqr. m.
10. Concrete in walls and foundations, one hundred and twenty-five (125) cub. m., at nine dollars fifty cents (\$9.50) per cub. m.
11. Concrete drain pipe, 80 centm. diameter, fifty (50) cub. m., at twelve dollars (\$12.00) per cub. m.
12. Timber in bridges, four (4) cub. m., at twenty-one dollars fifty cents (\$21.50) per cub. m.
13. Wheel guards, stone, four (4) pieces, at five dollars (\$5.00) each.
14. Transportation, erection, scraping, and painting of Arenas River bridge, at \$276.00.

We (or I) make this proposal with a full knowledge of the kind, quantity, and quality of the material and work required, and if it is accepted will, within ten (10) days after receiving written notice of such acceptance, enter into contract with good and sufficient sureties for the faithful performance thereof, and agree to complete the work in the time specified.

(Signature) VICTOR HONORÉ,
(Address) *Calle del Sol.*

Witness:

(Signed) M. SALGUERO.

ARTICLES OF AGREEMENT.

1. This agreement entered into this 8th day of July, nineteen hundred and four, between P. F. Fernandez, supt. of public works of the island of Porto Rico, of the first part and Victor Honoré, of Mayaguez, Porto Rico, of the second part:

Witnesseth, That in conformity with the advertisement and specifications hereunto attached and the plans and profiles filed in the office of the bureau of public works, which form a part of this contract, the said P. F. Fernandez, for and in behalf of the government of the island of Porto Rico, and the said Victor Honoré, do covenant and agree to and with each other, as follows:

2. That the party of the second part will furnish and deliver the following materials and will perform and provide the necessary labor required in the construction and for the completion of the road Consumo-Las Marias at the prices as given opposite each item in his bid, dated June 20, 1904, a copy of which is herewith attached, as follows:

1. 18,500 cub. m. excavations of materials not classified, at seventeen cents (0.17c) per cub. metre.
2. 30 cub. m. excavation in water at one dollar (1) per cub. metre.
3. 5,800 lin. m. excavations for drains, ditches, and water courses, at ten cents (0.10) per lin. metre.

4. 3,400 cub. m. broken stone macadam, measured before placed in the road, at one dollar and forty-nine cents (1.49) per cub. metre.

5. 430 cub. m. screenings, measured before placed in the road, at ninety-five cents (0.95) per cub. metre.

6. 35 cub. m. stone laid dry, at three dollars (3) per cub. metre.

7. 5 cub. m. second-class masonry, at fifteen dollars (15) per cub. metre.

8. 190 cub. m. third-class masonry, at eight dollars and fifty cents (8.50) per cub. metre.

9. 30 sqr. m. paving laid dry, at one dollar (1) per sqr. metre.

10. 125 cub. m. concrete in walls and foundations, at nine dollars and fifty cents (9.50) per cub. metre.

11. 50 cub. m. concrete drain pipe 0.80 centin. diameter, at twelve dollars (12) per cub. metre.

12. 4 cub. m. timber in bridges, at twenty-one dollars and fifty cents (21.50) per cub. metre.

13. 4 wheel guards, stone, at five dollars (5) each.

3. And the party of the first part, for and in behalf of the government of Porto Rico, agrees to pay to the party of the second part for all such material delivered and accepted and for all labor performed in the prosecution and completion of the work as required by this agreement the rates above specified and agreed upon.

4. The said Victor Honoré shall commence work under this contract on or before the 18th day of July, nineteen hundred and four, and shall complete the said work on or before the 18th day of December, nineteen hundred and four (1904).

5. That the general conditions governing contracts for insular public works in force since July, 1902, apply to this contract in so far as they are not modified by the stipulations herein contained and in the instructions to bidders and specifications herewith attached and forming part of this contract.

6. If in any event the party of the second part shall delay or fail to commence with the delivery of the material or the performance of the work on the day specified herein, or shall, in the judgment of the superintendent of public works, fail to prosecute faithfully and diligently the work in accordance with the specifications and requirements of this contract, then, in either case, the party of the first part, or his successor legally appointed, shall have power, with the sanction of the commissioner of the interior, to annul this contract by giving notice in writing to that effect to the party of the second part; and upon the giving of such notice the contract shall be annulled and all money due or to become due to the party of the second part by reason of this contract, in the amount of the guaranty of 10% of the original estimate of the work, viz, \$1,984, shall become forfeited to the people of Porto Rico, in accordance with provision in section 34 of the general conditions forming part of this contract, and the party of the first part shall be thereupon authorized, if an immediate performance of the work be, in his opinion, required by the public exigency, to proceed to provide for said performance by administration or contract; provided, however, that if the party of the second part shall by violence of the elements or other force, and by no fault of his own, be prevented either from commencing or completing the work at the time agreed upon in this contract such additional time may be allowed him, in writing, for such commencement or completion as in the judgment of the party of the first part shall be just and reasonable, but such allowance and extension shall in no manner affect the right or obligations of the parties under this contract, but the same shall subsist, take effect, and be enforceable precisely as if the new date for such commencement or completion had been the date originally herein agreed upon.

7. It is further understood and agreed that in case of failure of the party of the second part to complete this contract as specified and agreed upon, that if the guaranty of 10% thereby forfeited to the people of Porto Rico does not cover any or all damages due to such failure in excess of the sum so forfeited, the people of Porto Rico shall have the right to recover from the party of the second part or from his sureties whatever sums may be expended by the party of the first part in completing the said contract in excess of the price herein stipulated to be paid to the party of the second part for completing the same.

8. Monthly payments shall be made to the said Victor Honoré during the progress of the work in proportion as the material and labor contracted for shall have been furnished, reserving ten per cent (10%) from each payment until the whole work has been finally accepted and requirements have been complied with as provided in sections 38 41 of the general conditions forming part of this contract.

9. Neither this contract nor any interest therein shall be transferred to any other party or parties, and all rights of action for any breach of this contract by said Victor Honoré are reserved to the people of Porto Rico.

10. No person belonging to or employed in the service of the government of Porto Rico is or shall be admitted to any share or part of this contract, or to any benefit which may arise herefrom.

11. This contract shall be subject to approval of the commissioner of the interior.

In witness whereof the parties aforesaid have hereunto placed their hands the date first hereinbefore written.

Witnesses:

(Signed) ED. H. JONES,

as to (Signed) P. F. FERNANDEZ,
Superintendent of Public Works.

(Signed) J. W. BLANCO,

as to VICTOR HONORÉ.

Approved, July 18, 1904.

(Signed) W. H. ELLIOTT,
Commissioner of the Interior.

BOND WITH CONTRACT.

United States of America, island of Porto Rico.

Know all men by these presents, that Victor Honoré, of Mayaguez, P. R., as principal, and Andrés Orsiní and Jose Cajiga, as sureties, are held and firmly bound unto "the People of Porto Rico" in the sum of one thousand nine hundred and eighty-four dollars (\$1,984), and for which payment, well and truly to be made to the people of Porto Rico, we firmly bind ourselves, our successors, heirs, and legal representatives, jointly and severally by these presents.

The condition of the above obligation is such that whereas the said Victor Honoré has entered into a certain contract, hereto attached, with P. F. Fernandez, superintendent of public works, acting for and in behalf of the people of Porto Rico, bearing date the 8th day of July, A. D. 1904; now, if the said Victor Honoré shall well and truly fulfill all the covenants and conditions of said contract and shall perform all the undertakings therein stipulated by him to be performed, and shall perform all the work and furnish all the labor and material required by, any and all changes in, additions to, or omissions from said contract, which may hereafter be made within the term specified for the completion or within any extension of time allowed him for said completion, notice thereof to the said sureties being hereby waived, and shall promptly make payments to all persons supplying him labor or material in the prosecution of the work contemplated by said contract; then this obligation to be void, otherwise to remain in full force and virtue.

In testimony whereof the said Victor Honoré, as principal, and André Orsiní and Jose Cajiga, as sureties, have hereunto subscribed their hands and affixed their seals this 8th day of July, A. D. 1904.

Signed, sealed, and delivered in the presence of:

Witness:

(Signed) J. W. BLANCO.

(Signed) VICTOR HONORÉ.

(Signed) RAFAEL MARGUAL.

(Signed) DR. ANDRÉS ORSINÍ.

(Signed) JUAN RODRIGUEZ ACOSTA.

(Signed) JOSE CAJIGA.

BONDSMEN'S OATH.

Justification.

ISLAND OF PORTO RICO, *Town of San Juan, ss:*

Personally appeared before me, a notary public, the said Andrés Orsiní, who signed the foregoing obligation, and who, being by me first duly sworn according to law, deposes and says that he is worth the sum of one thousand nine hundred and eighty-four (1,984) dollars over and above his just debts, legal liabilities, and lawful exemptions, that he is a property holder in the island of Porto Rico, and he resides at Mayaguez, P. R.

DR. ANDRÉS ORSINÍ.

Subscribed and sworn to before me this eighth day of July, A. D. 1904.

[SEAL.]

JUAN QUINTERO.

BONDSMEN'S OATH.

Justification.

ISLAND OF PORTO RICO, *Town of San Juan, ss:*

Personally appeared before me, a notary public, the said Jose Cajiga, who signed the foregoing obligation, and who, being by me first duly sworn according to law, deposes and says that he is worth the sum of one thousand nine hundred and eighty-four (1,984) dollars over and above his just debt, legal liabilities, and lawful exemptions, that he is a property holder in the island of Porto Rico, and he resides at Mayaguez, P. R.

JOSE CAJIGA X.

TESTIGO JUAN RODRIGUEZ ACOSTA.

Subscribed and sworn to before me this eighth day of July, A. D. 1904.

[SEAL.]

JUAN QUINTERO.

APPENDIX K.

TESTS MADE IN THE ROAD MATERIAL LABORATORY AT WASHINGTON OF TWELVE SAMPLES OF ROCK USED IN ROAD WORK IN PORTO RICO.

[United States Department of Agriculture, Bureau of Chemistry, H. W. Wiley, chief. Road Material Laboratory, Logan Waller Page, chief.]

SEPTEMBER 30, 1903.

Mr. A. STIERLE,

Superintendent of Public Works, San Juan, P. R.

DEAR SIR: I have the honor to submit the results of tests on the 12 samples of rock shipped to this laboratory on the 12th of August last. I regret that the tests could not be made sooner, but at this season of the year our work is very excessive.

As the results show, your samples have a fairly high average; sample No. 804 (12) is a particularly good rock for main highways, and I hope that the supply is large and accessible. I inclose a small pamphlet, which will explain our method of classifying traffic, and in a few weeks I will send you a copy of a bulletin which is now in press, explaining our methods of work.

If there is anything further we can do for you, it will afford the greatest pleasure.

Respectfully,

(Signed) LOGAN WALLER PAGE,
Chief of Road Material Laboratory.

REPORT ON SAMPLE No. 793 (1) OF ROAD MATERIAL FROM (CAGUAS) RIO PIEDRAS, P. R. (ROAD No. 1, KILOMETER 21).

Made at the request of superintendent of public works, San Juan, P. R.

Material: Limestone.

Results of physical tests on sample submitted, and a comparison with highest and lowest results obtained on material of a similar nature.

	Results on sample submitted.	Results on similar materials.	
		Highest.	Lowest.
Specific gravity.....	2.7	3.1	2.1
Weight per cubic foot..... pounds..	168.8	192.8	138.1
Water absorbed per cubic foot..... do....	.2	4.8	.03
Per cent of wear.....	5.8	34.2	2.1
French coefficient of wear.....	6.9	19.0	1.2
Cementing value.....	30	231	8

Will give best results on light-traffic roads.

September 29, 1903.

CHEMICAL AND MINERAL COMPOSITION OF SAMPLE NO. 793 (1) OF ROAD MATERIAL FROM (CAGUAS) RIO PIEDRAS, P. R. (ROAD NO. 1, KILOMETER 21).

Made at the request of superintendent of public works, San Juan, P. R.

Character of material: Sedimentary rock.

Name: Limestone.

Essential mineral: Calcite (carbonate of lime), 96.55 per cent.

Accessory minerals: Volcanic sand, 2.95 per cent.

Chemical analysis.

	Per cent.
Lime (CaCO_3)	96.55
Insoluble in HCl	2.95
Total	99.50

Specimen is a massive dove-colored limestone, a small amount of fine volcanic sand as an impurity.

September 29, 1903.

REPORT ON SAMPLE NO. 794 (2) OF ROAD MATERIAL FROM CAYEY, P. R. (ROAD NO. 1, KILOMETER 61.4).

Made at the request of superintendent of public works, San Juan, P. R.

Material: Limestone.

Results of physical tests on sample submitted, and a comparison with highest and lowest results obtained on material of a similar nature.

	Results on sample submitted.	Results on similar materials.	
		Highest.	Lowest.
Specific gravity.....	2.7	3.1	2.1
Weight per cubic foot.....pounds..	168.8	192.8	138.1
Water absorbed per cubic foot.....do.....	.08	4.8	.03
Per cent of wear	5.1	34.2	2.1
French coefficient of wear	7.9	19.0	1.2
Cementing value.....	28	231	8

Similar to 793 (1).

September 29, 1903.

CHEMICAL AND MINERAL COMPOSITION OF SAMPLE NO. 794 (2) OF ROAD MATERIAL FROM CAYEY, P. R. (ROAD NO. 1, KILOMETER 61.4).

Made at the request of superintendent of public works, San Juan, P. R.

Character of material: Sedimentary rock.

Name: Limestone.

Essential mineral: 97.15 per cent.

Accessory minerals: Volcanic sand, 2.40 per cent.

Chemical analysis.

	Per cent.
Lime (CaCO_3)	97.15
Insoluble in HCl	2.40
Organic matter .....	.25
Phosphoric acid (P_2O_5)	Trace.
Total	99.80

Specimen is a coarse-grained, dark-gray limestone, containing some volcanic sand (decomposed rock glass) and organic matter as impurities.

September 29, 1903.

REPORT ON SAMPLE NO. 795 (3) OF ROAD MATERIAL FROM BAYAMON, P. R. (ROAD NO. 2, KILOMETER 6.9).

Made at the request of superintendent of public works, San Juan, P. R.
Material: Limestone.

Results of physical tests on sample submitted, and a comparison with highest and lowest results obtained on material of a similar nature.

	Results on sample submitted.	Results on similar materials.	
		Highest.	Lowest.
Specific gravity.....	2.7	3.1	2.1
Weight per cubic foot.....pounds..	168.8	192.8	138.1
Water absorbed per cubic foot.....do....	.6	4.8	.03
Per cent of wear.....	5.3	34.2	2.1
French coefficient of wear.....	7.5	19.0	1.2
Cementing value.....	16	231	8

Will give best results under country road traffic.
September 29, 1903.

CHEMICAL AND MINERAL COMPOSITION OF SAMPLE NO. 795 (3) OF ROAD MATERIAL FROM BAYAMON, P. R. (ROAD NO. 2, KILOMETER 6.9).

Made at the request of superintendent of public works, San Juan, P. R.
Character of material: Sedimentary rock.
Name: Limestone.
Essential mineral: Calcite (carbonate of lime), 97.85 per cent.
Accessory minerals: Insoluble residue, 1.74 per cent.
Secondary minerals: Limonite, 0.50 per cent.

Chemical analysis.

	Per cent.
Alumina (Al_2O_3).....	0.45
Iron oxide (Fe_2O_3).....	
Lime (CaCO_3).....	97.85
Insoluble in HCl.....	1.74
Total.....	100.04

Specimen is a fine-grained, light reddish-brown limestone, containing some limonite and insoluble siliceous clay as impurities.
September 29, 1903.

REPORT ON SAMPLE NO. 796 (4) OF ROAD MATERIAL FROM JUNCOS, P. R. (ROAD NO. 5, KILOMETER 17.5).

Made at the request of superintendent of public works, San Juan, P. R.
Material: Quartz diorite.

Results of physical tests on sample submitted, and a comparison with highest and lowest results obtained on material of a similar nature.

	Results on sample submitted.	Results on similar materials.	
		Highest.	Lowest.
Specific gravity.....	2.8	3.2	2.7
Weight per cubic foot.....pounds..	175.0	200.0	168.8
Water absorbed per cubic foot.....do....	.09	1.0	.1
Per cent of wear.....	2.5	3.9	1.6
French coefficient of wear.....	14.5	20.6	10.2
Cementing value.....	1	137	1

The resistance to wear of this sample is good, but it has practically no cementing value. It should do well under highway and suburban traffic if a good binder is used.

September 29, 1903.

CHEMICAL AND MINERAL COMPOSITION OF SAMPLE NO. 796 (4) OF ROAD MATERIAL FROM JUNCOS, P. R. (ROAD NO. 5, KILOMETER 17.5).

Made at the request of superintendent of public works, San Juan, P. R.

Character of material: Igneous rock.

Name: Quartz diorite.

Essential mineral: Plagioclase (silicate of alumina, lime, and soda); kaolin (hydrous silicate of alumina), 50.6 per cent; hornblende (silicate of alumina, lime, magnesia, and iron), 24 per cent; quartz (silica), 20 per cent.

Accessory minerals: Magnetite (magnetic oxide of iron), 5 per cent; apatite (phosphate of lime), 0.1 per cent.

Secondary minerals: Limonite (hydrous oxide of iron), 0.3 per cent.

Specimen is a light-gray, coarse-grained rock, composed chiefly of kaolinized plagioclase (andesine), quartz, and green hornblende.

September 29, 1903.

REPORT ON SAMPLE NO. 797 (5) OF ROAD MATERIAL FROM ARECIBO, P. R. (ROAD NO. 6, KILOMETER 1.4).

Made at the request of superintendent of public works, San Juan, P. R.

Material: Limestone.

Results of physical tests on sample submitted and a comparison with highest and lowest results obtained on material of a similar nature.

	Results on sample submitted.	Results on similar materials.	
		Highest.	Lowest.
Specific gravity	2.5	3.1	2.1
Weight per cubic foot	156.3	192.8	138.1
Water absorbed per cubic foot .....	.9	4.8	.03
Per cent of wear	7.4	34.2	2.1
French coefficient of wear	5.4	19.0	1.2
Cementing value	108	231	8

Should give excellent results under highway and country road traffic.

September 29, 1903.

CHEMICAL AND MINERAL COMPOSITION OF SAMPLE NO. 797 (5) OF ROAD MATERIAL FROM ARECIBO, P. R. (ROAD NO. 6, KILOMETER 1.4).

Made at the request of superintendent of public works, San Juan, P. R.

Character of material: Sedimentary rock.

Name: Limestone.

Essential mineral: Calcite (carbonate of lime), 99.80 per cent.

Accessory mineral: Volcanic sand, 0.36 per cent.

Chemical analysis.

	Per cent.
Lime (CaCO ₃)	99.80
Magnesia (MgO) .....	.36
Alkali (K ₂ O)	
Total	100.16

Specimen is a fine-grained, grayish yellow limestone, containing a small amount of volcanic sand (decomposed rock glass) as an impurity.

September 29, 1903.

REPORT ON SAMPLE NO. 798 (6) OF ROAD MATERIAL FROM CAROLINA, P. R. (ROAD NO. 7, KILOMETER 16.3).

Made at the request of superintendent of public works, San Juan, P. R.
Material: Limestone.

Results of physical tests on sample submitted and a comparison with highest and lowest results obtained on material of a similar nature.

	Results on sample submitted.	Results on similar materials.	
		Highest.	Lowest.
Specific gravity	2.7	3.1	2.1
Weight per cubic foot.....pounds	168.8	192.8	138.1
Water absorbed per cubic foot.....do	.5	4.8	.03
Per cent of wear.....	5.2	34.2	2.1
French coefficient of wear.....	7.7	19.0	1.2
Cementing value.....	27	231	8

Similar to 793 (1).
September 29, 1903.

CHEMICAL AND MINERAL COMPOSITION OF SAMPLE NO. 798 (6) OF ROAD MATERIAL FROM CAROLINA, P. R. (ROAD NO. 7, KILOMETER 16.3).

Made at the request of superintendent of public works, San Juan, P. R.
Character of material: Sedimentary rock.
Name: Limestone.
Essential minerals: Calcite (carbonate of lime), 92.37 per cent; dolomite (carbonate of lime and magnesia), 5.69 per cent.
Accessory mineral: Quartzose clay, 1.3 per cent.
Secondary mineral: Limonite (hydrated iron oxide), 0.64 per cent.

Chemical analysis.

	Per cent.
Iron oxide (Fe_2O_3)	0.50
Lime (CaCO_3)	95.53
Magnesia (MgO)	2.53
Insoluble in HCl	1.30
Total	99.86

Specimen is a fine-grained, dove-colored limestone, containing some dolomite, quartz, and limonite as impurities.
September 29, 1903.

REPORT ON SAMPLE NO. 799 (7) OF ROAD MATERIAL FROM RIO PIEDRAS, P. R. (ROAD NO. 7, KILOMETER 5.5).

Made at the request of superintendent of public works, San Juan, P. R.
Material: Limestone.

Results of physical tests on sample submitted and a comparison with highest and lowest results obtained on material of a similar nature.

	Results on sample submitted.	Results on similar materials.	
		Highest.	Lowest.
Specific gravity.....	2.6	3.1	2.1
Weight per cubic foot.....pounds	162.5	192.8	138.1
Water absorbed per cubic foot.....do	.8	4.8	.03
Per cent of wear.....	6.3	34.2	2.1
French coefficient of wear.....	6.3	19.0	1.2
Cementing value.....	91	231	8

Should give excellent results under country road traffic. Too soft for heavy traffic.
September 29, 1903.

CHEMICAL AND MINERAL COMPOSITION OF SAMPLE NO. 799 (7) OF ROAD MATERIAL FROM RIO PIEDRAS, P. R. (ROAD NO. 7, KILOMETER 5.5).

Made at the request of superintendent of public works, San Juan, P. R.

Character of material: Sedimentary rock.

Name: Limestone.

Essential mineral: Calcite (carbonate of lime), 97.96 per cent.

Accessory mineral: Siliceous clay, 1.40 per cent.

Secondary mineral: Limonite (hydrated oxide of iron), 1 per cent.

Chemical analysis.

	Per cent.
Iron oxide (Fe_2O_3)	0.97
Lime (CaCO_3)	97.96
Insoluble in HCl	1.40
Total	100.33

Specimen is a fine-grained, vesicular limestone of a light yellowish-brown color, containing some limonite and quartz as impurities.

September 29, 1903.

REPORT ON SAMPLE NO. 800 (8) OF ROAD MATERIAL FROM COMERIO, P. R. (ROAD NO. 9, COMERIO NORTH).

Made at the request of superintendent of public works, San Juan, P. R.

Material: Limestone.

Results of physical tests on sample submitted and a comparison with highest and lowest results obtained on material of a similar nature.

	Results on sample submitted.	Results on similar materials.	
		Highest.	Lowest.
Specific gravity	2.7	3.1	2.1
Weight per cubic foot	168.8	192.8	138.1
Water absorbed per cubic foot .....	.1	4.8	.03
Per cent of wear	6.0	34.2	2.1
French coefficient of wear	6.7	19.0	1.2
Cementing value	135	231	8

Same will apply as does to 797 (5).

September 29, 1903.

CHEMICAL AND MINERAL COMPOSITION OF SAMPLE NO. 800 (8) OF ROAD MATERIAL FROM COMERIO, P. R. (ROAD NO. 9, COMERIO NORTH),

Made at the request of superintendent of public works, San Juan, P. R.

Character of material: Sedimentary rock.

Name: Limestone.

Essential mineral: Calcite (carbonate of lime), 94 per cent.

Accessory minerals: Phosphorite (phosphate of lime), 0.2 per cent; quartz (silica), 4.70 per cent.

Secondary mineral: Limonite (hydrated oxide of iron), 1 per cent.

Chemical analysis.

	Per cent.
Alumina (Al_2O_3)	1.15
Iron oxid (Fe_2O_3)	
Lime (CaCO_3)	94.00
Insoluble in HCl	4.80
Phosphoric acid (P_2O_5) .....	.10
Total	100.05

Specimen is a fine-grained dove-colored limestone, containing some fine quartz sand, limonite, and phosphorite as impurities.

September 29, 1903.

REPORT ON SAMPLE NO. 801 (9) OF ROAD MATERIAL FROM UTUADO, P. R. (ROAD NO. 6, KILOMETER 28.7).

Made at the request of superintendent of public works, San Juan, P. R.
Material: Quartz diorite.

Results of physical tests on sample submitted and a comparison with highest and lowest results obtained on material of a similar nature.

	Results on sample submitted.	Results on similar materials.	
		Highest.	Lowest.
Specific gravity	2.7	3.2	2.7
Weight per cubic foot	168.8	200.0	168.8
Water absorbed per cubic foot .....	.4	1.0	.1
Per cent of wear	4.0	3.9	1.6
French coefficient of wear	10.0	20.6	10.2
Cementing value	28	137	1

Should give satisfactory results under country road, highway, and suburban traffic.
September 29, 1903.

CHEMICAL AND MINERAL COMPOSITION OF SAMPLE NO. 801 (9) OF ROAD MATERIAL FROM UTUADO, P. R. (ROAD NO. 6, KILOMETER 28.7).

Made at the request of superintendent of public works, San Juan, P. R.

Character of material: Igneous rock.

Name: Quartz diorite.

Essential minerals: Plagioclase (silicate of alumina, lime, and soda) + kaolin (hydrous silicate of alumina), 57.5 per cent; hornblende (silicate of lime, magnesia, iron, and alumina), 17 per cent; quartz (silica), 12 per cent.

Accessory minerals: Magnetite (magnetic oxide of iron), 3 per cent; apatite (phosphate of lime), 0.1 per cent.

Secondary minerals: Epidote (hydrous silicate, alumina, and iron), 6 per cent; chlorite (hydrous silicate of magnesia, iron, and alumina), 4 per cent.

Specimen is a decomposed light greenish-gray plutonic rock, composed essentially of kaolinized and epidotized plagioclase (andesine), quartz, and green chloritized hornblende.

September 29, 1903.

REPORT ON SAMPLE NO. 802 (10) OF ROAD MATERIAL FROM MANATI, P. R. (ROAD NO. 11, MANATI TO CIALES, KILOMETER 3).

Made at the request of superintendent of public works, San Juan, P. R.

Material: Limestone.

Results of physical tests on sample submitted and a comparison with highest and lowest results obtained on material of a similar nature.

	Results on sample submitted.	Results on similar materials.	
		Highest.	Lowest.
Specific gravity	2.6	3.1	2.1
Weight per cubic foot	162.5	192.8	138.1
Water absorbed per cubic foot .....	.9	4.8	.03
Per cent of wear	5.2	34.2	2.1
French coefficient of wear	7.7	19.0	1.2
Cementing value	61	231	8

Will do well under light traffic.

September 29, 1903.

CHEMICAL AND MINERAL COMPOSITION OF SAMPLE NO. 802 (10) OF ROAD MATERIAL FROM MANATI, P. R. (ROAD NO. 11, MANATI TO CIALES, KILOMETER 3).

Made at the request of superintendent of public works, San Juan, P. R.

Character of material: Sedimentary rock.

Name: Limestone.

Essential mineral: Calcite (carbonate of lime), 93.40 per cent.

Accessory mineral: Quartzose clay, 5.31 per cent.

Secondary mineral: Limonite (hydrated oxide of iron), 1 per cent.

Chemical Analysis.

	Per cent.
Iron oxide (Fe_2O_3)	0.74
Lime (CaCO_3)	93.40
Magnesia (MgO)	Trace.
Insoluble in HCl	5.31
Total	99.45

Specimen is a fine-grained, brownish yellow, vesicular limestone, containing some clay and limonite as impurities.

September 29, 1903.

REPORT ON SAMPLE NO. 803 (11) OF ROAD MATERIAL FROM RIO PIEDRAS, P. R. (ROAD NO. 1, KILOMETER 16).

Made at the request of superintendent of public works, San Juan, P. R.

Material: Basalt tuff.

Results of physical tests on sample submitted, and a comparison with highest and lowest results obtained on material of a similar nature.

	Results on sample submitted.	Results on similar materials.	
		Highest.	Lowest.
Specific gravity	2.7	3.0	2.4
Weight per cubic foot	168.8	189.4	147.5
Water absorbed per cubic foot	1.1	6.4	.1
Per cent of wear	3.5	16.6	1.3
French coefficient of wear	11.3	30.4	2.4
Cementing value	25.0	72.0	2.0

The same applies to this sample as does to No. 801 (9).

September 28, 1903.

CHEMICAL AND MINERAL COMPOSITION OF SAMPLE NO. 803 (11) OF ROAD MATERIAL FROM RIO PIEDRAS, P. R. (ROAD NO. 1, KILOMETER 16).

Made at the request of superintendent of public works, San Juan, P. R.

Character of material: Volcanic rock.

Name: Basalt tuff.

Essential mineral: Augite (silicate of lime and magnesia), plagioclase (silicate of alumina, lime, and soda), rock glass.

Accessory minerals: Magnetite (magnetic oxide of iron), pyrite (disulphide of iron).

Secondary minerals: Calcite (carbonate of lime), chlorite (hydrous silicate of magnesia, iron, and alumina), epidote (hydrous silicate of lime and alumina), limonite (hydrated oxide of iron).

Chemical analysis.

	Per cent.
Alumina (Al_2O_3)	14.72
Iron oxide (Fe_2O_3)	
Lime (CaO)	16.16
Magnesia (MgO)	2.90
Loss on ignition	15.16
Insoluble in HCl	51.15
Total	100.09

Specimen is a dark gray, fine-grained, fragmental rock, composed essentially of angular particles of vitreous basalt, augite, plagioclase, and magnetite, cemented together by calcite (25 per cent).

September 28, 1903.

REPORT ON SAMPLE NO. 804 (12) OF ROAD MATERIAL FROM GURABO, P. R. (ROAD NO. 5, KILOMETER 7.1).

Made at the request of superintendent of public works, San Juan, P. R.

Material: Basalt breccia.

Results of physical tests on sample submitted, and a comparison with highest and lowest results obtained on material of a similar nature.

	Results on sample submitted.	Results on similar materials.	
		Highest.	Lowest.
Specific gravity.....	3.0	3.0	2.4
Weight per cubic foot.....pounds..	187.5	189.4	147.5
Water absorbed per cubic foot.....do....	.3	6.4	.1
Per cent of wear.....	3.5	16.6	1.3
French coefficient of wear.....	11.5	30.4	2.4
Cementing value.....	146.0	72.0	2.0

This sample has a fairly high resistance to wear and is more than 100 per cent higher in its cementing value than any rock of its class tested in this laboratory. It should give excellent results on all but city traffic roads. It is an unusually good road-making rock.

September 28, 1903.

CHEMICAL AND MINERAL COMPOSITION OF SAMPLE NO. 804 (12) OF ROAD MATERIAL FROM GURABO, P. R. (ROAD NO. 5, KILOMETER 7.1).

Made at the request of superintendent of public works, San Juan, P. R.

Character of material: Volcanic rock.

Name: Basalt breccia.

Essential mineral: Augite (silicate of lime and magnesia), 51.2 per cent; plagioclase (silicate of alumina, lime, and soda) + scolecite (hydrous silicate of lime and alumina), 10.5 per cent; rock glass, 14 per cent.

Accessory minerals: Magnetite (magnetic oxide of iron), 3 per cent.

Secondary minerals: Chlorite (hydrous silicate of magnesia, alumina, and iron), 11 per cent; epidote (hydrous silicate of lime, iron, and alumina), 7 per cent; calcite (carbonate of lime), 3 per cent; limonite (hydrous oxide of iron), 3 per cent.

Chemical analysis.

	Per cent.
Silica (SiO_2).....	45.68
Alumina (Al_2O_3).....	9.89
Iron oxide (Fe_2O_3).....	13.67
Titanium oxide (TiO_2).....	1.58
Lime (CaCO_3).....	13.00
Magnesia (MgO).....	8.26
Alkali (K_2O).....	} 4.00
Alkali (Na_2O).....	
Loss on ignition.....	3.55
Phosphoric acid (P_2O_5).....	.11
Total.....	99.74

Specimen is a dark grayish green, medium grained, fragmental rock, consisting essentially of augite and feldspar crystals and fragments of vitreous basalt, cemented together by devitrified rock glass.

September 28, 1903.

EXHIBIT C.

REPORT OF THE SUPERINTENDENT OF INSULAR TELEGRAPH.

DEPARTMENT OF THE INTERIOR OF PORTO RICO,
BUREAU OF INSULAR TELEGRAPH,
San Juan, P. R., June 30, 1904.

SIR: The following report of operation and maintenance of the bureau of insular telegraph for the fiscal year 1903-4 is submitted in compliance with the request contained in your letter of May 16, 1904.

The close of the present fiscal year finds the insular telegraph of Porto Rico in an efficient condition and with increased earning capacity. The system, though extended but little in mileage, has been increased in the number of offices over the previous year.

While but a limited amount of work as to extending the mileage of lines was done during the past year, attention has been given to repair of all lines in operation, which have been placed in as good state of repair as available funds for contingent expenses permitted. Since September 1, 1903, general repair and reconstruction work has been in progress, and as far as practicable all unserviceable poles, cross arms, wire, pins, and brackets have been replaced by new material, and as a result of these renewals the lines at this date are in a general good condition. However, in some sections, owing to limited amount of new poles on hand, a number of supports in a somewhat advanced stage of decay were left standing. These will be replaced by new ones as soon as money is available for purchase of this class of material.

All general repair work, as well as the reconstruction of various sections of lines hereinafter mentioned, has been done under the supervision of the chief lineman of this bureau, assisted by such number of additional linemen and laborers as the nature of the work in hand required and as was consistent with economy, with a view to pushing the work as rapidly as possible. Whenever possible poles for repair work have been purchased in the vicinity where used, which, on account of excessive rates for wagon transportation, has proved to be the most economical way of providing this class of line material. The cost of repair work has been materially reduced by this saving in transportation of poles, and the total cost of all repairs made to lines for the year has been comparatively small.

I am glad to be able to state, as will appear in subsequent paragraphs of this report, that the telegraph continues to show an increase in the volume of business handled as well as in the amount of revenue derived therefrom, and to state that improvement in the efficiency of the personnel keeps pace with the increase in both volume of business and earnings. The past record for care and accuracy in handling messages has been maintained by the faithful and intelligent performance of duty by each individual employee.

The record shown by the bureau of insular telegraph from date of its establishment for prompt and accurate service, considering that only a few years ago a majority of the operators comprising the personnel were without training or experience in telegraph work, is gratifying to the superintendent, and reflects credit upon the corps of employees, it being the result of labor begun under unfavorable and somewhat discouraging conditions, the story of which has been related in preceding reports.

Of the Port Rican operators now in the service the majority are the product of exclusive training by this service, either in the school maintained at San Juan or at telegraph offices, where they served as employees in a minor capacity while preparing themselves for work as operators.

The high state of proficiency as operators developed and maintained by a number of the young ladies who have been employed is in many cases gratifying. They possess the ability to transmit and receive messages over the wire in a manner that would do credit to members of the telegraph profession of longer experience; their work is prompt and reliable and their monthly reports are models of neatness and accuracy, being always prepared and rendered when due.

Since June 30, 1903, 8 additional offices have been opened to the public, making a total of 40 stations in operation by this service on date of this report. Some of these new stations were not established until recently, and for that reason the earnings as shown for the year can not be taken as a basis of what the total earnings would have been had all the offices been in operation for the whole year. Probably 15 per cent increase of total receipts shown would not be overestimating the results for a year of all the offices.

EXTENSION OF LINES.

Extension in mileage of line made to the system consists of a new line built extending from Humacao to Yabucoa, a distance of 15 kilometers. At San Juan the lines entering the city were extended to the branch office, established January 1, 1904, on the pier of the New York and Porto Rico Steamship Company, and at Mayaguez the lines entering that city were extended from the playa to the city proper, where, on May 1, 1904, a telegraph office was established.

In considering extension, mention might also be made of the loop at Vega Baja, connecting the station at that place with the main line, consisting of about 1 kilometer of wire, in all a total extension of about 19 kilometers of line.

Prior to January 1, 1904, but one office was maintained in the capital by this service, and, owing to the constantly increasing volume of business, this proved inadequate to render efficient service. The branch office at San Juan was opened with the view of relieving the congestion at the main office and at the same time increase still further the volume of business by offering to the public the convenience of a station situated in the wholesale business section. The opening of the branch office has justified both expectations.

At Mayaguez the only telegraph office in that city prior to May 1, 1904, was maintained at or near the playa, and telegrams for the city proper had to be delivered by messenger, a distance of about a mile. The increase in volume of business for that place showed that an office in the city, as well as at the playa, would prove a valuable addition to the service and facilitate the handling of telegrams to and from Mayaguez. Hence, on May 1, 1904, an additional office was established there, the main office being situated on the plaza in the city, while the playa station, operated as a branch office with main line connections, was moved to a more convenient and advantageous location in the principal business section. This arrangement was designed both to facilitate the handling of messages and to encourage, by offering convenience to the public, a further increase from that point in volume of same.

HELIOGRAPH SERVICE.

On May 1, 1904, the heliograph station at La Fortuna was moved to the town of La Ceiba. At times when shipping was heavy at Vieques, a number of vessels being in the harbor at Isabel II, interference by masts and sails frequently interrupted the signals and proved a source of considerable annoyance, resulting occasionally in delay to messages. Being desirous of eliminating such interferences, a search was made for a more desirable site for the Porto Rico station. After several experiments a most desirable location was found at La Ceiba, there being no obstruction of any kind to interfere with the signals from that point. Besides providing a better course over which to work both day and night, the establishment of the office at La Ceiba, a town of considerable size and of more or less commercial importance, provides it with a telegraph office, from which sufficient revenue is expected to equal the cost of rent and light at that station.

Aside from the interferences above mentioned, the heliograph service has been excellent and seems to meet every requirement of the place. The records show that as many as 125 messages have been exchanged between the two stations in a day, most of them containing 20 words and some having as many as 150 words in the text. This of course is not the maximum amount of work that can be handled, but it represents a fair day's work for two men, neither of whom had assistance, and is mentioned merely to show what is capable of being done with the instruments in use when operated by capable men. I will also add, with a view to pointing out the reliability of this method of signaling, that not a single complaint has been received at this office relative to errors made in transmission, and it is believed that none have occurred, which is indeed remarkable.

RECONSTRUCTION OF LINES.

The work of removing the lines built by the Signal Corps, United States Army, from their almost inaccessible location in many places to alongside the public highway was begun September 1, 1903. Owing to inadequate amount of funds available to move all of the lines so situated, only such sections where poles were in a bad state of decay were removed. In rebuilding these portions of the line new poles 7 and 8 meters long, of native hardwood, were used.

The first section thus rebuilt was that between Caguas and Humacao, a distance of 30 kilometers. But few of the old poles in this line were found serviceable and therefore new material was used. The line as reconstructed follows closely the course of the carretera between the towns mentioned above. This work, begun on the date above stated, was completed September 15, 1903, at a total cost for labor and transportation of \$841.37.

The next section receiving attention was along the military road between San Juan and Ponce, between kilometers 82, south of Aibonito, and 51, south of Las Cruces, 31 kilometers, all of which was built along or follows closely the course of the road above mentioned and consists of first-class material throughout. The work began October 1, 1903, was concluded November 17, 1903, and the cost incurred for labor and transportation was \$1,290.25.

Upon the completion of this work near Las Cruces November 17, 1903, the construction gang was transferred to San Juan. Work was resumed on the San Juan-Ponce section at San Justo street, San Juan, December 23, 1903, and all poles and cross-arms were replaced by new ones, transferring the line at places where it was distant from the public highway from its former site to alongside the military road as far south as La Muda, a distance of 23 kilometers, the cost for labor and transportation being \$583.94.

On account of lack of funds to purchase poles, this class of work was discontinued, leaving portions of the line in need of like repairs unattended. However, a sum sufficient to purchase poles to reconstruct the line between Aguadilla and Lares was asked for in the deficiency estimate at the last session of the legislature. The sum asked for having been provided and available for use March 10, 1904, a contract for 300 telegraph poles was entered into, and upon their delivery May 1, 1904, work of rebuilding the Aguadilla-Lares section of line was begun. The new poles purchased, supplemented by a number of old poles found in good state of preservation, were sufficient to complete the repairs to this section, consisting of 37 kilometers. The work was concluded June 1, 1904, at a cost, including purchase of poles, transportation of all material, pay for labor, and per diem allowance to skilled linemen, of \$924.05.

The poles and other material used on sections San Juan-Ponce (Aibonito-Las Cruces and San Juan-La Muda) and Caguas-Humacao were on hand, having been purchased from funds provided for in the budget for the fiscal year 1902-3.

All of the reconstruction work above mentioned, including purchase of poles for the Aguadilla-Lares section, was done at a total cost of \$3,639.61, an average of \$30.08 per kilometer.

To have continued the work of rebuilding the telegraph lines requiring such attention, transferring them from cane and pasture fields and other undesirable places where many of the lines now are and mostly on private property, would have been desirable, but after providing for the maintenance of the system, the balance available proved inadequate to carry the work beyond that of placing the poles on hand, purchased the previous year as above mentioned.

FUNDS APPROPRIATED FOR CONTINGENT EXPENSES.

The amount appropriated for contingent expenses for the fiscal year 1903-4 was small. The sum designated for purchase of material of all kinds was \$3,520, exceeding by a small margin the cost of maintenance during the year, including repairs to the lines and purchase of battery material and telegraph instruments.

A balance of \$668.59, pertaining to "trust fund" 1901-2, subsequently transferred to the budget for the fiscal year 1902-3, and later transferred to the fund for contingent expenses 1903-4, "to be used exclusively for extension of lines" was utilized in purchase of poles for Humacao-Yabucoa telegraph line and for the construction of same. Other sums appropriated for contingent expenses, appearing under various subheads, have been expended under such headings for the purpose for which they were appropriated, except such balance as may hereafter be shown.

A return to the treasury of \$2,749.42, money appropriated for salaries, is shown. This saving is due to the fact that a number of operators and linemen worked as "reliefs" during absence on leave, or in case of sickness of regular employees, and were paid only for time employed. A number of increases in salary provided for were not made at the time the money became available, hence the difference between the amount of salary paid and the increase provided for causing the unexpended balance, as shown above. However, all increases in salaries authorized by the budget were made by December 31, 1903, and applied to those who merited such recognition as shown by their increased efficiency and ability exhibited in performing work.

MESSAGES HANDLED.

The total number of paid commercial messages handled during the fiscal year to which this report pertains was 234,597. The tolls on same amounted to \$29,979.72. The total number of free messages handled during same period, including all departments of the insular government of Porto Rico, the Army and Navy of the United States and the United States customs and postal services, was 68,690. The computed value of tolls amounted to \$16,975.

The following comparative statement shows an increase in both volume and value of commercial messages handled during the fiscal year 1903-4 over the fiscal year 1902-3; also an increase in the volume of free messages handled during the same period, while a decrease in the value of this class of business appears:

Fiscal year.	Commercial messages handled.		Free messages handled.	
	Number.	Value.	Number.	Computed value.
1903-4	234,597	\$29,979.72	68,690	\$16,975.00
1902-3	223,675	29,381.11	63,711	19,732.96
Increase	10,922	598.61	4,979	a 2,757.96

a Decrease.

The increase shown in either volume or value of commercial business handled is not very large, but it indicates a natural and healthy growth.

The increased volume of free messages is due in part to the fact that the franking privilege has been withdrawn from all departments of the insular government by the postal authorities, and it is presumed that much of the correspondence from the various departments that formerly was sent by mail is now sent by wire. The decrease in the value of free messages is due to the fact that during the registration and election periods of the fiscal year 1902-3 many of the messages, mostly pertaining to the office of the supervisor of elections, were unusually long, frequently containing from 100 to 500 words each.

NECESSITY FOR ADDITIONAL LINES.

Extension of the telegraph lines to all towns on the island now without means of rapid communication should be encouraged.

Under existing conditions the telegraph may well be considered as being in the category of important public improvements in Porto Rico and necessary for the proper carrying out of both official and commercial business. The need, not to mention the convenience, of a telegraph office at a number of towns, having comparatively large populations, whose only means of communication at present are the mails or special messenger, can better be imagined than described.

It is safe to say that wherever a telegraph office has been established in Porto Rico in the past few years, such office has proved of value to the commercial and social welfare of the place, and it is the cheapest method for the insular government to give isolated communities communication with the markets and the world in general. By having telegraphic communication, wholesale merchants at commercial centers are able to quote prices on goods to their customers in the interior of the island and keep them advised as to the condition of the market; the telegraph provides a means of diffusing this information cheaply and expeditiously. At present, merchants whose places of business are located at towns difficult of access by transportation, and travel by coach being expensive, even where good roads exist, can not take or receive advantage of the rise or fall of prices at their market when buying or selling, which disadvantage tends to retard development along commercial lines.

I have observed at many of the towns visited by me while on inspection trips during the past year that merchants, especially those handling provisions and other staple articles, are enlarging their establishments and otherwise endeavoring to expand to provide for prospective increase in volume of their business. This may well be regarded as a sign of general improvement, and certainly the establishment of telegraphic communication at towns whose residents do not at present enjoy this method of communication would furnish a means for further and more rapid development of all enterprises now established and it is believed would encourage a

diversification of enterprise, according to the resources of each locality, a thing so urgently needed for the well-being of the people who reside in the interior towns of this island.

Modern development can not progress unless modern facilities be provided, and it is evident that those who have had to do with providing funds for the bureau of insular telegraph since it was established do not regard the telegraph service in the proper light. Judging by the limited amount of money that has been appropriated in the past, since 1901, for construction of telegraph lines, it would seem that it was being looked upon as a burden to the government or at least treated as a matter of secondary importance instead of what it is—a thing indispensable and necessary; a forerunner of civilization and promoter of social and business welfare.

The slowness on the part of the legislature to recognize the telegraph in its true light, and make ample provision for extension of the system, may be accounted for, in part at least, by the fact that before it came under the control of the insular government of Porto Rico it had been maintained for military purposes and devoted, in a large measure, to handling official messages, while commercial interests were, to a great extent, subservient to the disposition of and treatment accorded them by the operators, who were not restrained from being guided by personal likes or dislikes of those who would use this method of communication. So with the disadvantage of an antiquated system, and that badly kept, combined with a worse service, due to a lack of desire on the part of employees to perform work, whose acts tended to discourage rather than encourage use of the wires, it may be that those among them who are not familiar with conditions as they now exist—a modern plant, up-to-date and well equipped, an efficient corps of operators maintained for the purpose of rendering to the public as well as to the government quick and reliable service, and no military master to serve—and view the telegraph from past experience may allow the thoughts of treatment accorded the public at that time by this important branch of the government, much abused in those days, to militate against fair treatment at present.

However, the results obtained by this bureau in establishing and maintaining a service, without regard to its extent, unsurpassed in efficiency and all else that the telegraph stands for, should recommend it to all upon whom it relies for maintenance and obtain from them hearty support in way of ample provision for a liberal extension, in the near future, of the lines. The revenue, in way of line receipts, produced and deposited in the treasury of Porto Rico (none of which funds are used by this service) as an off-set to appropriations allotted for maintenance in the past, should argue strongly in favor of the plea for sufficient funds to continue the building of lines until each hamlet in Porto Rico is reached and provided with a telegraph office.

Referring to the United States, Porto Rico at present enjoys a unique position with regard to its telegraph. The question of government ownership of the telegraph has for some time been a subject for discussion. Porto Rico has the opportunity of demonstrating whether or not governmental administration and operation is practicable and economical, and the matter, so far successful, should be developed to the fullest extent and given a fair trial.

If, in Porto Rico, with a comparatively small amount of work to perform, owing to the limit both of enterprise and country, with a low tariff rate—lower than is at present charged by telegraph companies in the United States, except in large cities where special rates are charged for local messages or between points where competition is great—the telegraph system can be equipped with modern and up-to-date instruments, employees paid a good salary, and yet show a surplus of earnings, the example may go far toward solving the problem above referred to, which would redound to the credit of the administration and be an honor to the island.

In my report for the fiscal year 1902-3, I stated that when the projected main lines were built but little in the way of construction work would remain to be done, as when these lines were constructed and in operation the system would, owing to the limited area of the island, be practically complete, except perhaps a number of short spurs might be found necessary to reach towns where at present the need of a telegraph office is not apparent; and that upon the completion of this work the need for appropriations, other than for maintenance, would not exist. It does not seem unreasonable to anticipate that the telegraph system would be self-sustaining when the projected extensions have been made. The results obtained, with reference to service rendered, and revenue, in the way of line receipts, produced, if taken as a criterion, is cogent proof that the telegraph may be relied upon as a producer of revenue rather than a drain upon the treasury of the island for its maintenance.

The amount of money that would be required to establish the projected lines and equip for operation a number of additional offices, say 25, would be insignificant as

compared with appropriations made for other public improvements not more essential to the welfare of the people or public interest.

It no doubt is the intention ultimately, by gradual extension, to give the island a complete telegraph system, and, since the outlay of money for such work would be the same if done in the near future, all at once, or later, by successive additions, it might be considered good policy to take advantage of the benefits, financial and otherwise, that would accrue if done at an early date, and at the same time secure to the government as well as the people access by telegraph to all parts of the island.

Number and value of commercial and free messages handled for the year 1903-4.

Month.	Paid commercial mes- sages handled.	Value.	Free messages handled.	Computed value.	Total of messages handled.	Value.
1903.	<i>Number.</i>		<i>Number.</i>		<i>Number.</i>	
July.....	17,267	\$2,225.10	3,915	\$1,243.02	21,182	\$3,468.12
August.....	13,664	1,752.55	3,836	1,174.37	17,500	2,926.92
September.....	15,947	1,971.85	4,658	1,466.30	20,605	3,438.15
October.....	20,097	2,547.95	5,666	1,607.22	25,763	4,155.17
November.....	19,515	2,500.57	5,518	1,279.41	25,033	3,779.98
December.....	21,438	2,740.90	5,439	1,272.08	26,877	4,012.98
1904.						
January.....	20,372	2,601.65	5,652	1,226.91	26,024	3,828.56
February.....	20,648	2,775.48	5,801	1,306.50	26,449	4,081.98
March.....	21,875	2,798.67	6,556	1,490.80	28,431	4,289.47
April.....	21,403	2,741.65	6,844	1,577.25	28,247	4,318.90
May.....	20,005	2,535.41	5,884	1,592.13	26,889	4,127.54
June.....	22,366	2,787.94	7,921	1,739.01	30,287	4,526.95
Total.....	234,597	29,979.72	68,690	16,975.00	303,287	46,954.72

Total earnings of the bureau, including value of free business, for the fiscal year 1903-4..... \$46,954.72

Actual cost of operation and maintenance for the fiscal year 1903-4, expended under the various subheads—

For salaries.....	\$38,432.38
For rent of offices.....	980.34
Light for stations.....	179.22
Transportation and subsistence of employees.....	348.23
Freight and wagon transportation.....	232.67
Purchase of material and miscellaneous expenditures....	495.77
	<u>40,668.61</u>

Earnings of the lines over and above the cost of operation and maintenance..... 6,286.11

Cost of extending, moving, and rebuilding telegraph lines, fiscal year 1903-4, expended under subheads—

Transportation and subsistence of employees.....	\$639.75
Freight and wagon transportation.....	266.00
Purchase of material and miscellaneous expenditures ...	3,027.17
	<u>3,932.92</u>

Earnings of the bureau over and above all expenses, including operation, maintenance, and reconstruction of lines..... 2,353.19

Total appropriations for the fiscal year 1903-4:

For salaries.....	\$40,060.00
For salaries (deficiency appropriation).....	1,121.80
For contingent expenses.....	6,270.00
For contingent expenses (deficiency appropriation).....	300.00
	<u>47,751.80</u>

Total amount expended during the fiscal year

1903-4:

For salaries.....	\$38,432.38
For contingent expenses.....	6,169.15
	<u>44,601.53</u>

Unexpended balance returned to the treasury:

For salaries	\$2, 749. 42	
For contingencies	400. 85	
		\$3, 150. 27
		\$47, 751. 80

Respectfully submitted.

L. G. MCGUIGAN,
Superintendent of Insular Telegraph.

Hon. W. H. ELLIOTT,
Commissioner of the Interior.

EXHIBIT D.

REPORT OF THE CHIEF OF THE BUREAU OF AGRICULTURE AND MINES.

DEPARTMENT OF THE INTERIOR OF PORTO RICO,
BUREAU OF AGRICULTURE AND MINES,
San Juan, June 10, 1904.

SIR: In compliance with instructions contained in your letter of May 16, 1904, I have the honor to submit the following report of the operations of the bureau of agriculture and mines from July 1, 1903, to June 30, 1904:

The duties of the bureau are limited to the publication of agricultural bulletins, furnishing to the public information on matters connected with agriculture and mining, and carrying out the business relative to mining claims and concessions.

AGRICULTURAL BULLETINS.

Ten bulletins have been published since July 1, 1903, and two others, that are to be issued during the present month, are being printed. These twelve bulletins will aggregate 498 pages of printed matter and 14,400 copies, the subjects treated being as follows:

- No. 13. Los abonos comerciales; El encalado de los suelos.
- No. 14. Plantas leguminosas para abono verde y para forraje; El estiércol.
- No. 15. El jengibre en Jamaica; Algunos de los principales productos del maíz; Cultivo del tomate en los Estados Unidos.
- No. 16. La batata.
- No. 17. Algunos remedios contra los principales insectos que atacan el tabaco; El bisulfuro de carbono como insecticida; Posibilidad del cultivo del caucho en Puerto-Rico.
- No. 18. Insecticidas importantes; Fungicidas ó remedios para las enfermedades fungosas de las plantas.
- No. 19. Indicaciones prácticas sobre el cultivo de frutas; La yuca.
- No. 20. El mango en Puerto-Rico.
- No. 21. El maní, su cultivo y sus usos; La pepita del algodón y sus productos.
- No. 22. Razón de las labores del suelo; Sistemas de explotación de fincas agrícolas en los Estados Unidos.
- No. 23. El drenaje.
- No. 24. Fermentos del suelo importantes en agricultura.

The greater part of these productions have been taken from publications of the United States Department of Agriculture, and are translations of, or mere compilations from, said publications. Some articles have been taken from the bulletin of the botanical department of Jamaica. In their selection preference has been given—first, to those describing improved methods for the cultivation of special tropical crops that are grown or can be grown advantageously in Porto Rico, and, second, to those adverting to general agricultural questions and to the general principles that are to guide the farmer in the various operations for the production and marketing of crops. This has been appreciated by this bureau as the most judicious way of meeting the purpose of the bulletins, which is in its opinion to provide to the greatly felt necessity in Porto Rico of showing farmers those facts and principles that experience and experiments in other countries have made known in a conclusive manner, and which by their general character are of universal application and constitute the foundations of agricultural progress. In effect, among the problems confronted by the farmer in Porto Rico, there are many bearing a local character, which can only

be solved by dint of special and continuous investigations carried out at an agricultural experiment station. It would not be reasonable to pretend that these investigations would lead necessarily to immediate results. The problems to be solved are, as a rule, so complex and involve elements so variable and so entirely out of the control of the investigator that the attainment of favorable results can only be the work of time, however intelligently and judiciously the experiments may be conducted. It is not to be wondered either that sometimes negative conclusions are only obtained, albeit—and this is a fact shown by experience in all progressive countries—the results collected through time by the patient task carried out in the experiment stations have such an economic bearing, be it on account of the increased yield of crops that may be obtained or the losses that may be avoided therefrom, that the cost of maintaining such stations is comparatively of no consequence.

It is therefore of the greatest importance for the furtherance of our agricultural industry that the experiment stations in the island be efficiently supported both by the government and by the people at large. But besides these questions, which are to be the subject of special investigations, there are many others encountered by the Porto Rican farmer, the solution of which will be given or at least greatly aided by a wise application of the general principles already established by agricultural science and of the improved general methods warranted by experience in other countries. With this motive in view, it was considered that in the interim our farmers can avail themselves of the results of the work of the experiment station, and our agricultural industry might be favored to a great extent by the dissemination through the agricultural bulletin of the department of the interior of the principles and general methods for the production of crops, their safeguard against insect pests and other enemies, the preservation of the fertility of the soil, and the feeding and improvement of farm animals.

The favorable reception which these bulletins seem to have had, judging from the increasing demand for registration in the mailing list and the favorable comments of the press, lead to the belief that the idea that they answer to a real necessity in Porto Rico is not a mistake, and it is to be regretted that the necessity of reductions in the budget for the ensuing fiscal year led the legislative assembly to discontinue the appropriation for the publication of the bulletin.

The cost of printing these bulletins, including the two now being printed, will be \$718, and the expense for stamps for their distribution \$282, aggregating a total of \$1,000.

PRINCIPAL CROPS.

The figures handed in by the collector of customs anent the exportation of the chief agricultural products, and some private information, allow of making the following remarks in regard to the importance of the last crops:

Sugar.—Although an increase in the extent of cane plantations for the year 1903 had been reported, the yield has not been quite satisfactory and the amount of sugar produced by the cane ground during the year has been lower than that of the year 1902 by about 5,094,000 pounds. The price, on the other hand, has been somewhat higher, and the cash value of the crop has exceeded that of 1902 by about \$418,717.

The amount and value of sugar and molasses shipped from Porto Rico to the United States during the years 1902 and 1903 were as follows:

Year.	Sugar.		Molasses.	
	Amount.	Value.	Amount.	Value.
	<i>Pounds.</i>		<i>Gallons.</i>	
1902	206,341,994	\$6,395,137	1,964,393	\$351,801
1903	201,247,040	6,813,854	2,434,434	320,345

The prospect for the present year is most alluring. Prices for sugar are high, and it is estimated that the present crop will be 15 per cent more than that of last year. It is to be expected that the thriving state of this industry will induce the investment in central factories in the various districts of the island, where there are still great tracts of lands suitable for the culture of sugar cane.

Coffee.—Information with regard to the coffee crop for 1903 seemed to indicate that it would be greater than that of 1902. However, the figures from the custom-house with regard to the exportation of this commodity show that the difference between the two crops, if any, is of no import. In fact, up to May 31, 1904, by which date almost all the crop for 1903 should have been exported, shipments to the United States and

foreign countries only amounted to 33,676,707 pounds, a sum lower by 1,450,978 pounds than that of the crop for 1902. The conditions of the market have improved somewhat since the beginning of the year with higher prices, but this increase of prices came rather late, when the greater part of the crop had been turned to dealers, so that it was of small profit to planters.

The aggregate amount and value of shipments of coffee from Porto Rico to the United States and foreign countries for the four last crops has been as follows:

Year.	Amount.	Value.
	<i>Pounds.</i>	
1900	12,157,240	\$1,678,765
1901	26,906,399	3,195,662
1902	35,127,685	3,970,574
1903	33,676,707	3,829,695

Exportation of this crop is not yet ended. The figures include shipments made up to May 31, 1904.

The shipments of coffee to the United States have been greatly reduced in the present year, amounting only to 2,363,332 pounds, with value of \$272,801, during the eleven months from July 1, 1903, to May 31, 1904, against 6,363,332 pounds and value of \$718,531 during the fiscal year 1902-3.

Information received with regard to the condition of the next crop is unfavorable. The condition of the weather during the first months of the year was not propitious, and the yield of the crop is estimated as very meager.

Tobacco.—It has not been possible to ascertain the amount of the last tobacco crop, but 5,000,000 pounds seems to be a conservative estimate. The prices for this staple have been low and discouraging to planters.

The amount and value of tobacco and cigars shipped to the United States during the years 1902 and 1903 are as follows:

Year.	Leaf tobacco.		Cigars.	
	Amount.	Value.	Amount.	Value.
	<i>Pounds.</i>		<i>Thousands.</i>	
1902	417,478	\$60,655	93,848	\$2,131,799
1903	1,268,060	255,814	56,145	1,445,640

Fruits.—The shipping of oranges and other fruits to the United States is increasing, as shown by the following figures of the value of shipments of said produce during the years 1902 and 1903:

Year.	Oranges.	Other fruits.
1902	\$77,006	\$37,136
1903	314,094	64,116

Cotton.—A certain amount from the test crop planted last year was harvested in the first months of the current year. As a rule the results have been satisfactory, and prices paid at San Juan for seed cotton have ranged from \$5 to \$8. These prices are high enough to induce the growing of this plant on a great scale. In some cases planters have not obtained the expected results, but this is not to be wondered at, since it is a new culture now started. At any rate, the satisfactory results obtained by many planters seem to indicate that cotton can be grown successfully in Porto Rico. Moreover, as it is a culture which requires small capital, and as the product does not need any especial preparation to be put on the market, it is within the scope of those having small tracts of land, and it appears that its development might greatly improve the critical conditions of small landowners of the interior, due to the low price of coffee.

MINES.

On July 1, 1903, 22 applications for mining concessions were pending, and 19 more have been filed since that date, making a total of 41 claims prosecuted in the bureau during the present fiscal year. All these claims were canceled by the com-

missioner of the interior, by virtue of an opinion given by the attorney-general for Porto Rico on September 17, 1903. According to this opinion, the property of minerals under private lands, which by the old mining law was vested in the people of Porto Rico, was transferred to the owner of the land by the provisions of the new civil code that took effect on July 1, 1902, and accordingly the right to establish mining claims on land of private property was discontinued from the same date.

Very respectfully,

JUAN BTA RODRIGUEZ,
Assistant Commissioner of the Interior,
Chief Bureau of Agriculture and Mines.

Hon. W. H. ELLIOTT,
Commissioner of the Interior.

EXHIBIT E.

REPORT OF THE CHIEF OF THE DIVISION OF ARCHIVES.

DEPARTMENT OF THE INTERIOR OF PORTO RICO,
DIVISION OF ARCHIVES,
San Juan, P. R., May 17, 1904.

SIR: In compliance with the instructions in your communication of the 16th instant, directing a report of the operations of this division of archives from July 1, 1903, to June, 1904, and full statistical report to July 1, 1904, I have the honor of submitting to you the following report:

The task of the entire organization of these archives intrusted to this division has been carried forward rapidly during the fiscal year beginning July 1, 1903, up to this date.

The work accomplished has been important, as we have been able to establish order out of the chaos of papers that were scattered throughout the lower floor of this building.

Archives belonging to the different branches constituting the system of Spanish administration during the four hundred years of its domination were to be found disseminated here in all directions.

Here were found documents pertaining to the archives of the twelve custom-houses of the island, department of finance, auditor, treasury, taxes and revenues, diputacion provincial, courts of justice, general supervision of forest and mines, and board of public works and technical management of the same.

They make a total of 22 archives in charge of this division, which had to be put in a perfect state of organization, not only to comply with what is provided in section 8 of the treaty of Paris, but also to facilitate the prompt dispatch of affairs now intrusted to the department constituted after the American occupation.

This necessity is easily explained on account of the close connection between the Spanish administration and the present one with regard to taxes, property of the nation, religion and clergy, and other services in which procedures were pending when the radical change took place.

All documents pertaining to public finances, footing 1,451 packages of records, where can be learned the history of the Spanish domination during the long period of its government, are perfectly organized, classified, and inventoried.

Documents pertaining to the organization of the extinguished board of public works come after, amounting to 48 packages of records, where are to be found plans and drawings made by Spanish engineers during the fourteen years of its existence, or from its establishment in 1882 until it was abolished by a military order issued by General Henry.

We proceeded forthwith to the organization of the library of this division, where are held in custody all account books of the different branches of the Spanish administration, and all printed books which were scattered in many places of this department, amounting to a total of 2,107 volumes, among which are to be found important data anent ultramarine legislation, which are at present availed with great benefit to the departments created for the American administration of the island.

Finally, all important documents belonging to the extinguished "diputacion provincial" have been organized, classified, and inventoried, making a total of 2,130 packages of records containing the history of that civil institution from its start to its termination, due to the change of domination of this island.

This is the task accomplished by this division of archives during the period stated at the beginning of this report.

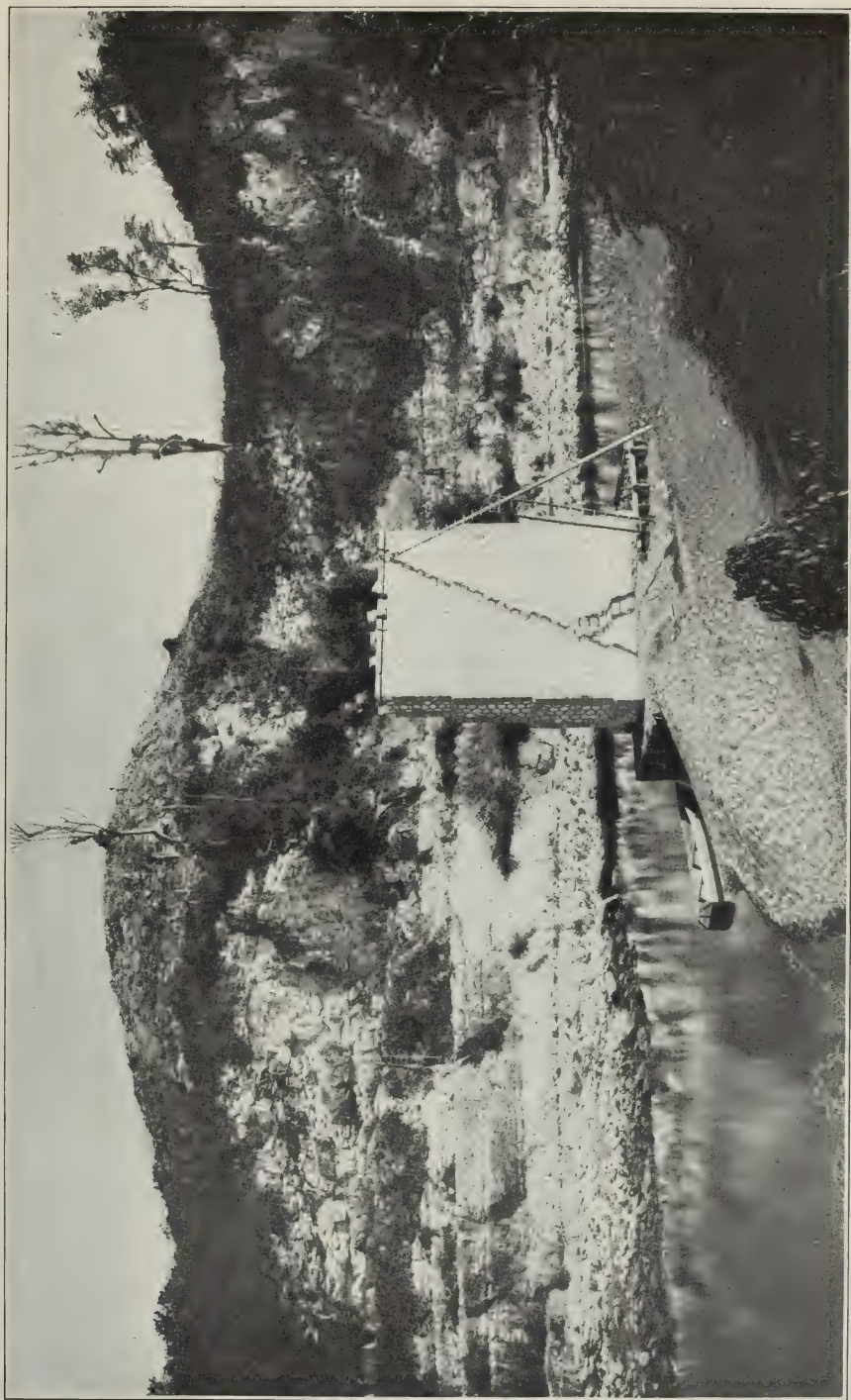
But the work is not completed. We are about to begin the organization of the old archives of the courts of justice, an indispensable task on account of penal data which undoubtedly will be called for when wanted at the office of the attorney-general and by the supreme and district courts.

And, after having finished this work, there will remain for the ensuing fiscal year the organization of the voluminous archives of the executive department, which are now in many boxes in the stores of public works, being boxes returned from Washington to be kept in custody in this island.

Respectfully,

T. A. DAUBON,
Chief Division of Archives.

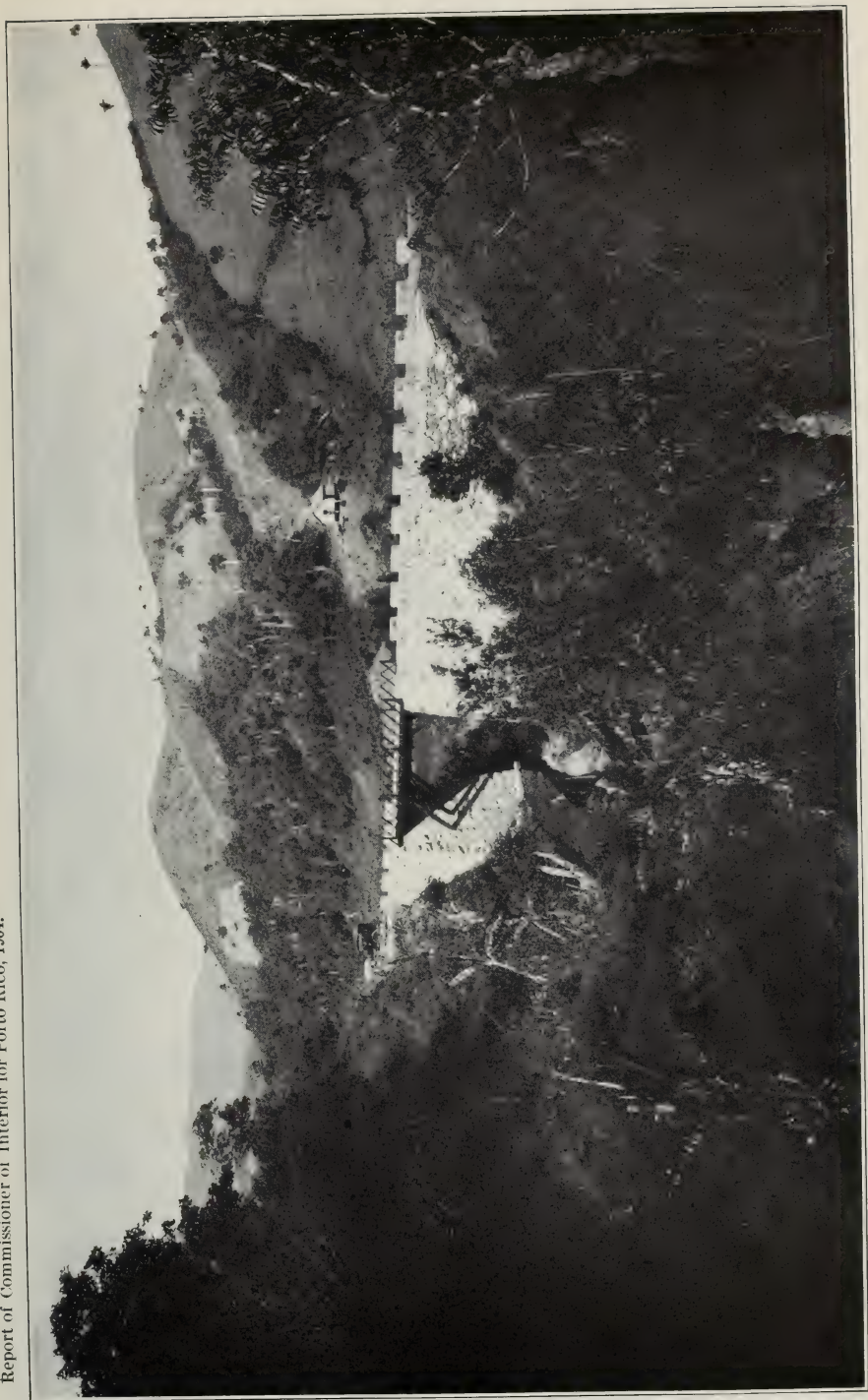
HON. W. H. ELLIOTT,
Commissioner of the Interior.



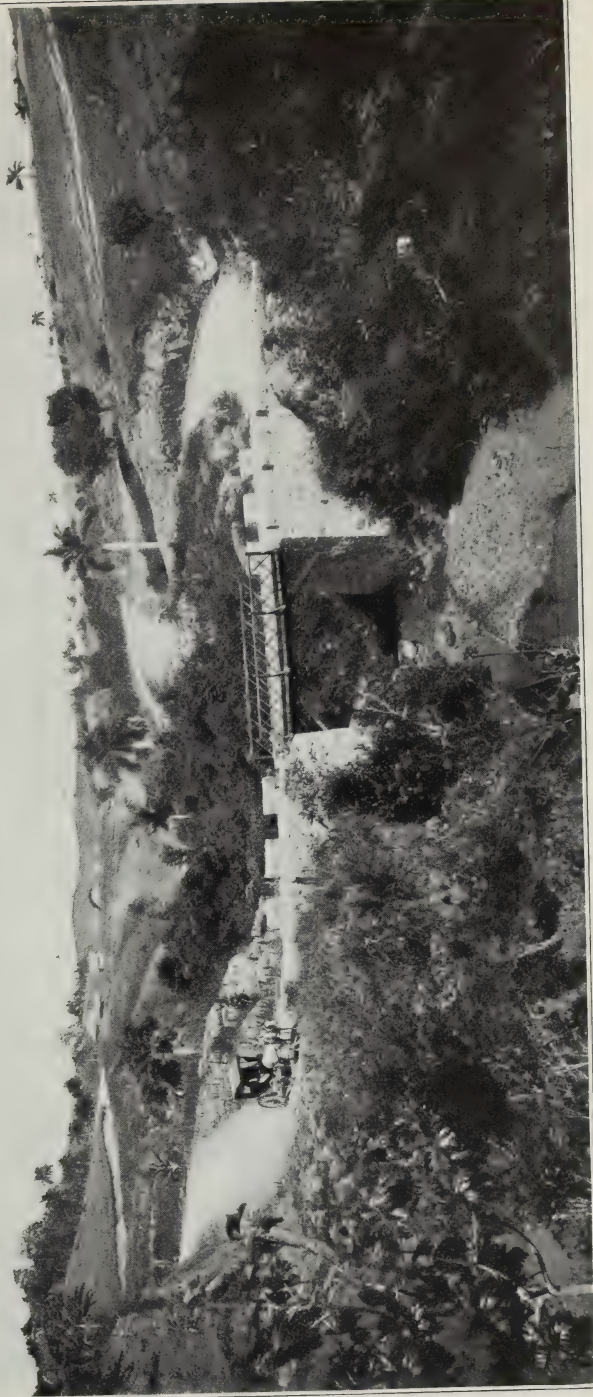
MANATI RIVER, SHOWING PIER AND NATURAL ABUTMENT.



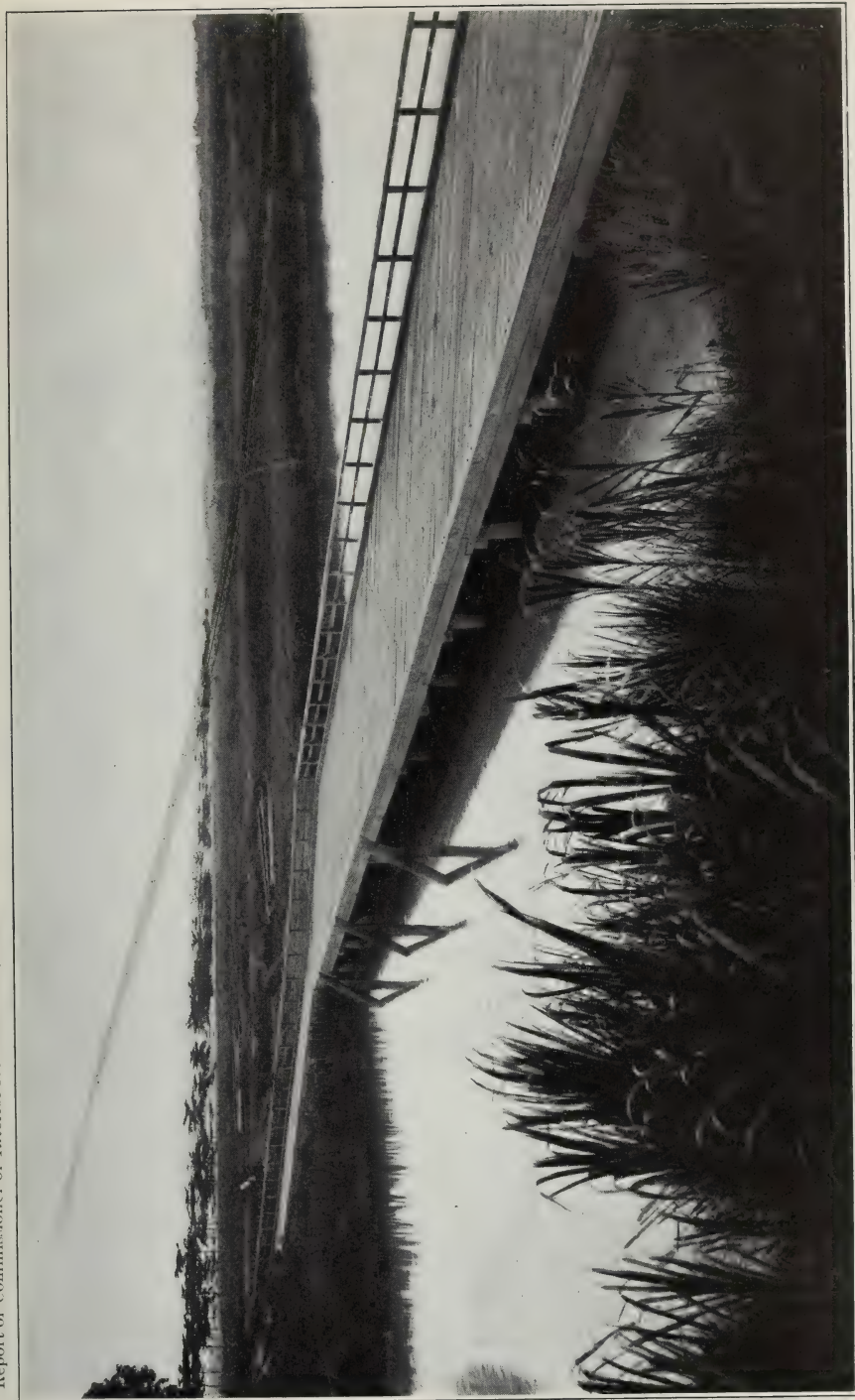
MANATI PIER.



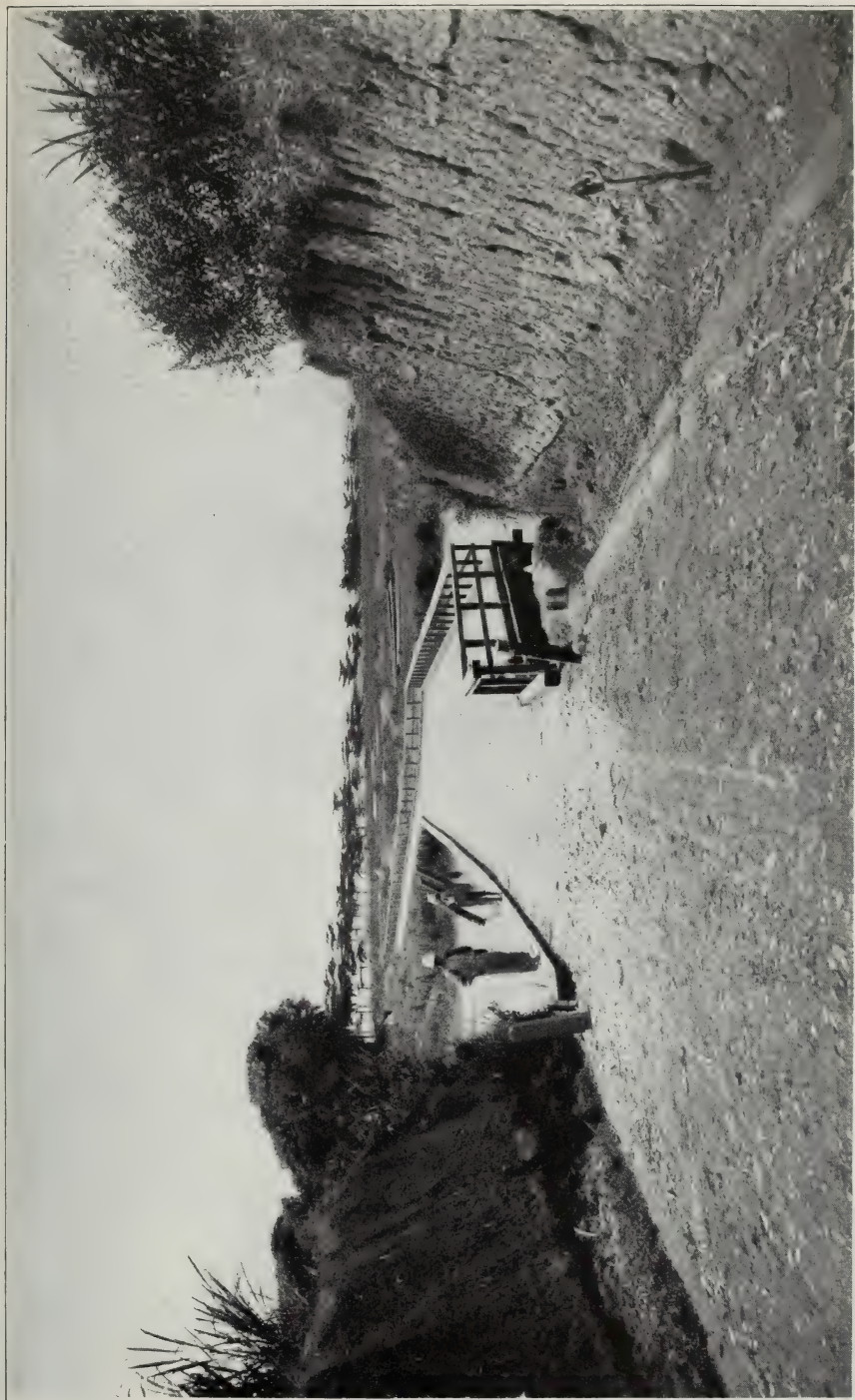
DAJAOS BRIDGE, BAYAMON-COMERIO ROAD.



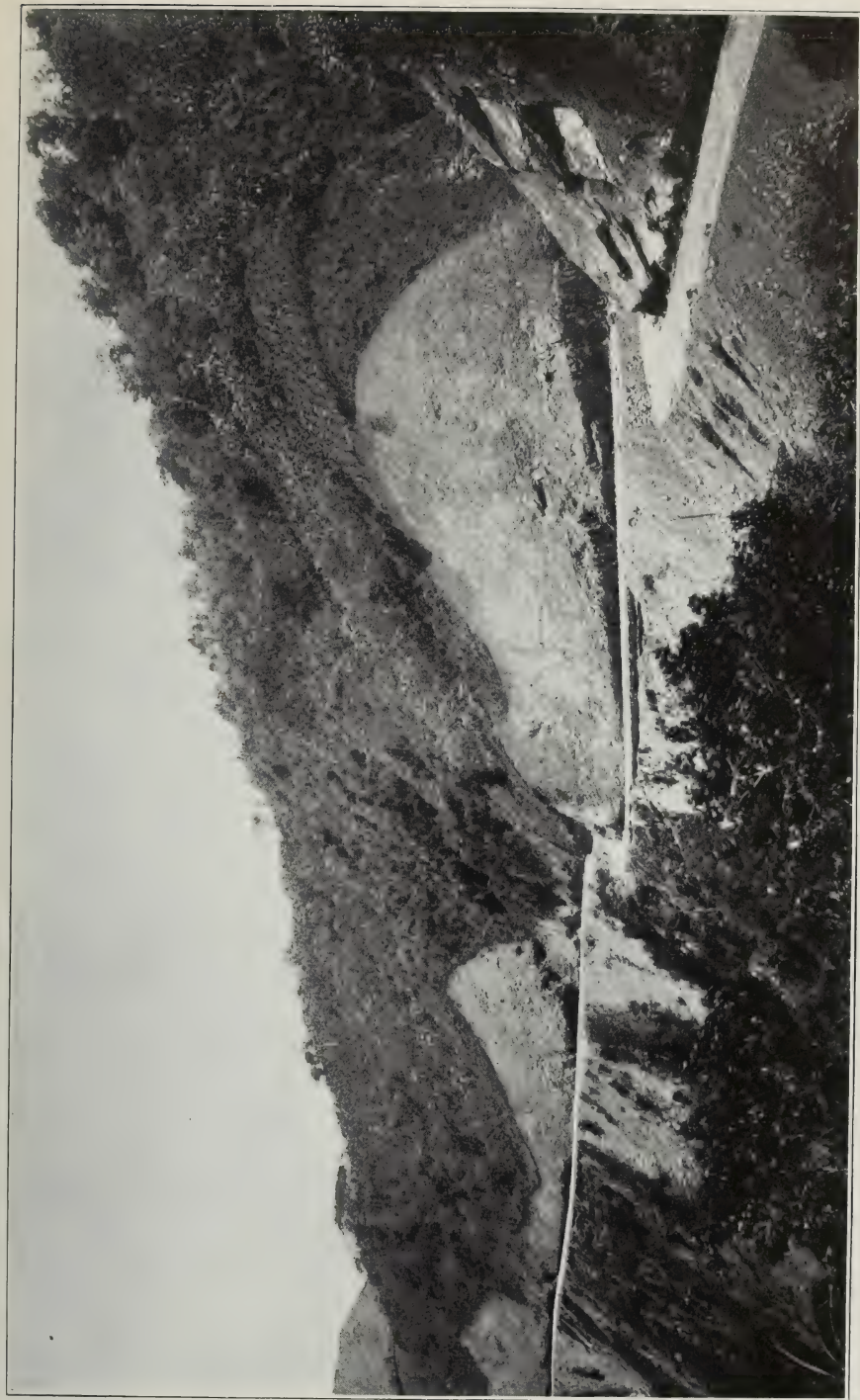
CANCEL BRIDGE BAYAMON-COMERIO ROAD.



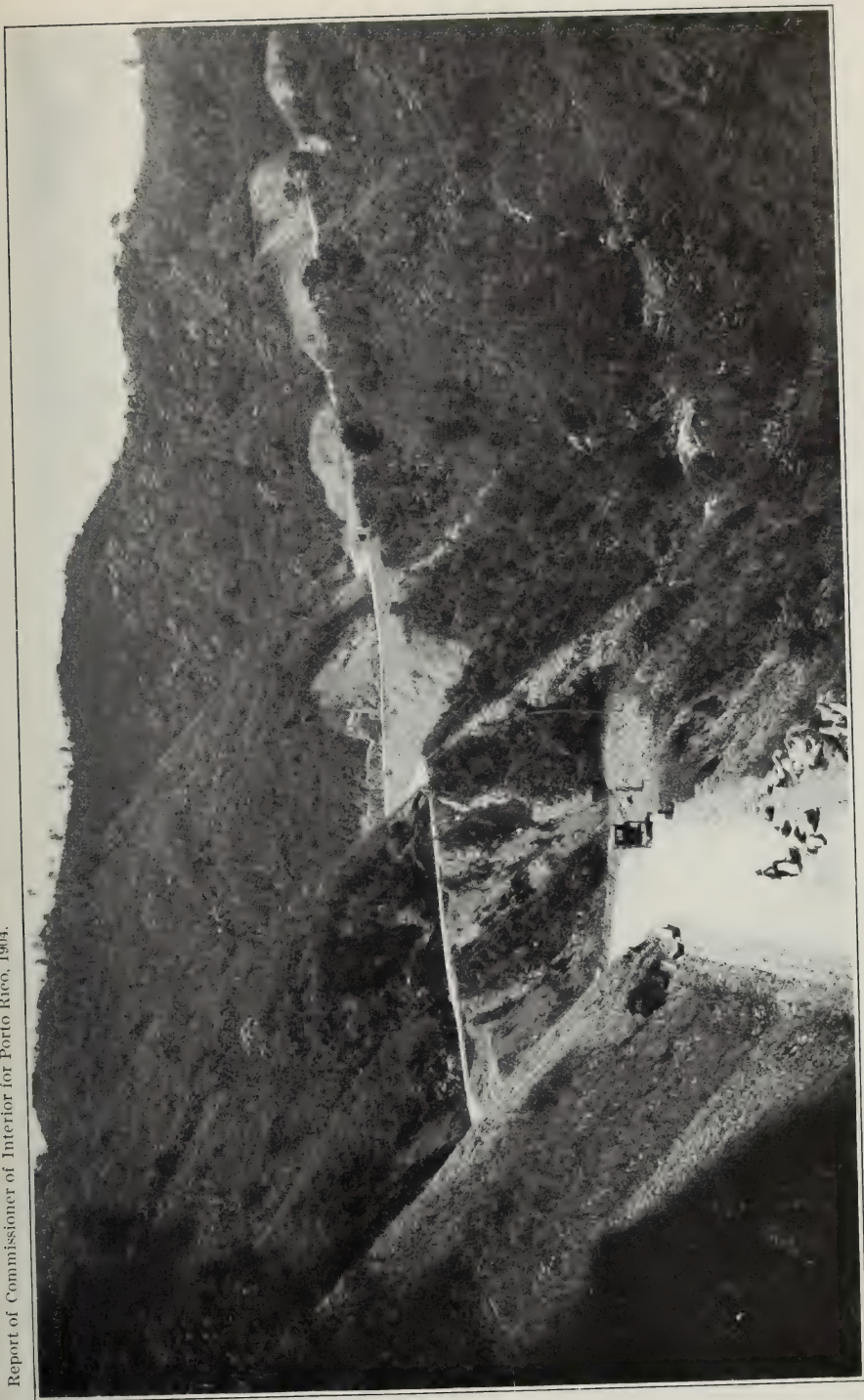
SUBMERGIBLE BRIDGE, AÑASCO RIVER.



SUBMERGIBLE BRIDGE, AÑASCO RIVER.



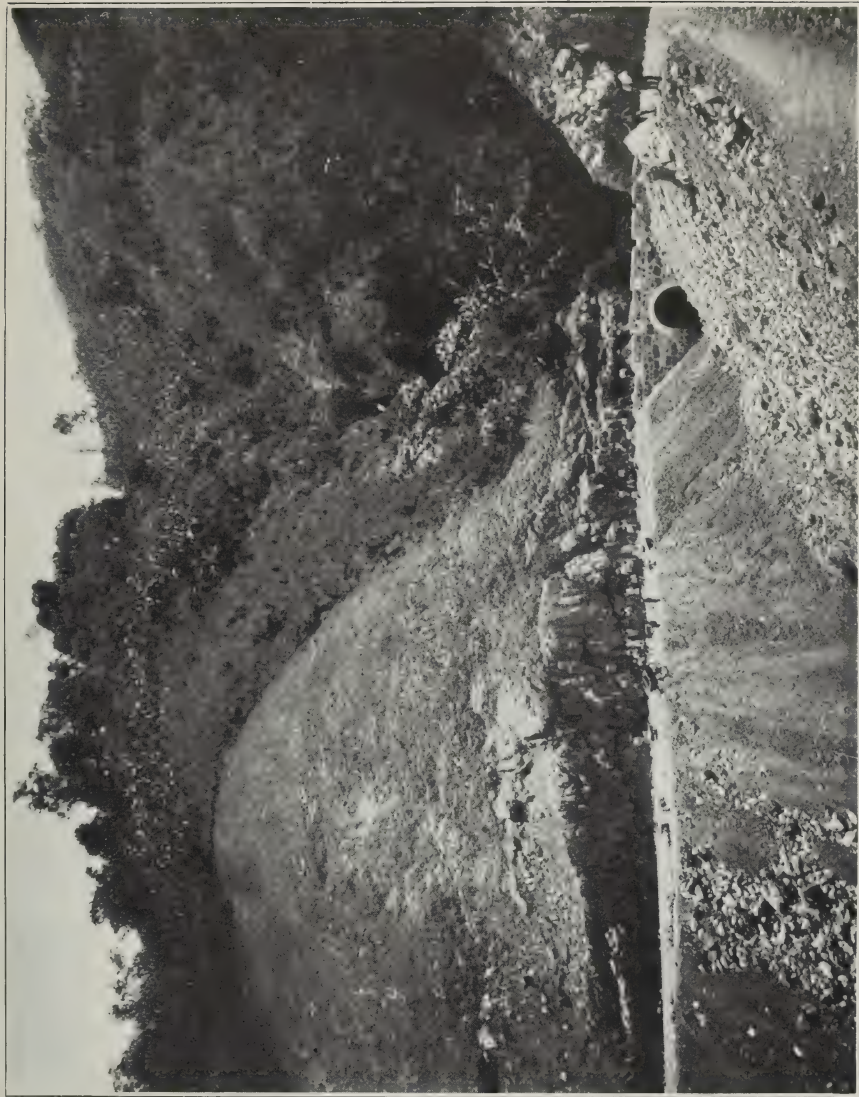
ROAD NO. 6, TALLONES-ADJUNTAS SECTION. VIEW LOOKING FROM TALLONES.



ROAD NO. 6, TALLONES-ADJUNTAS SECTION. ONE KILOMETER OF HEAVY WORK AT TALLONES.



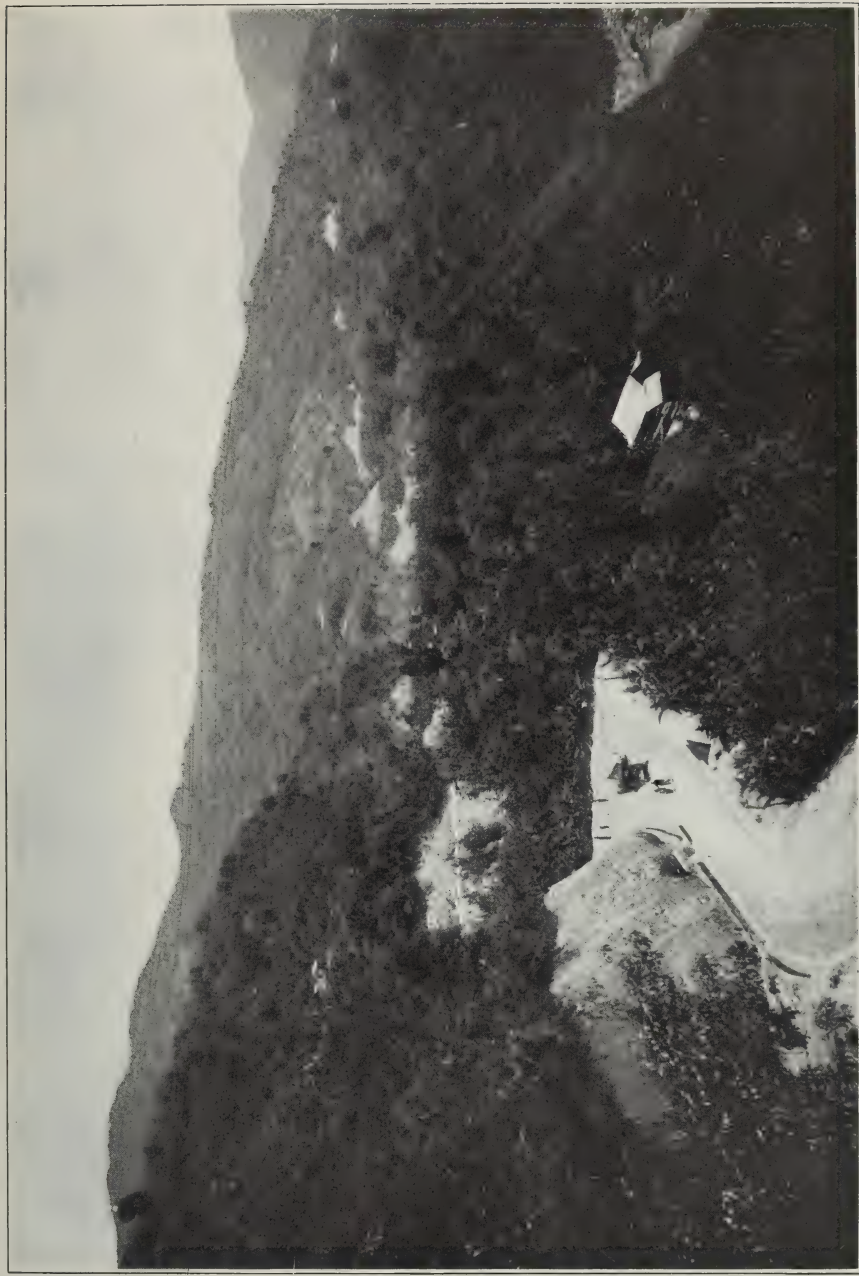
ROAD NO. 6, TALLONES-ADJUNTAS SECTION. CURVE $3\frac{1}{2}$ KILOMETERS FROM ADJUNTAS.



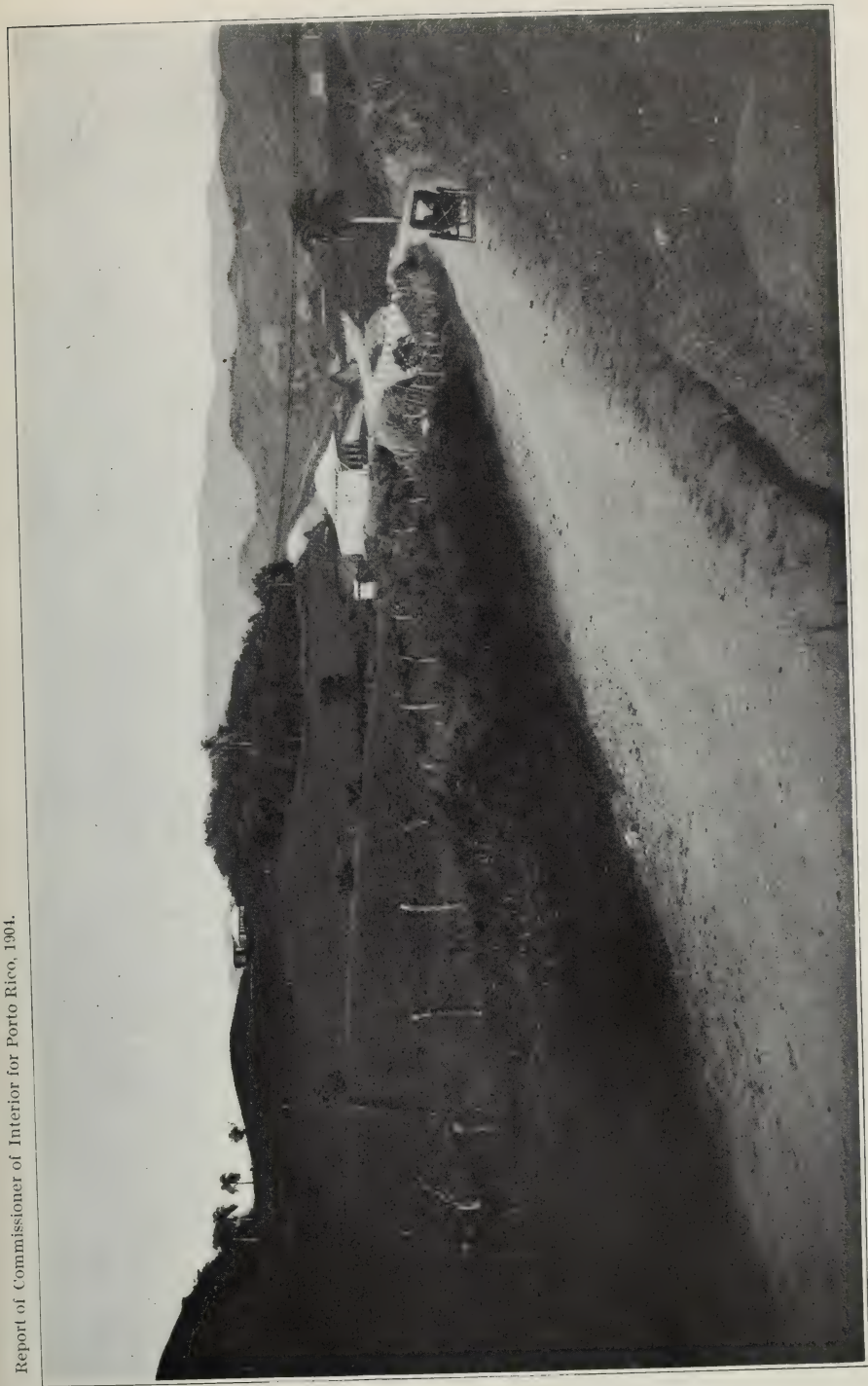
ROAD NO. 6, TALLONES-ADJUNTAS SECTION. ROCK CUT AND CULVERT, TALLONES.



ROAD NO. 6, TALLONES-ADJUNTAS SECTION, HEAVIEST CUT AT TALLONES.



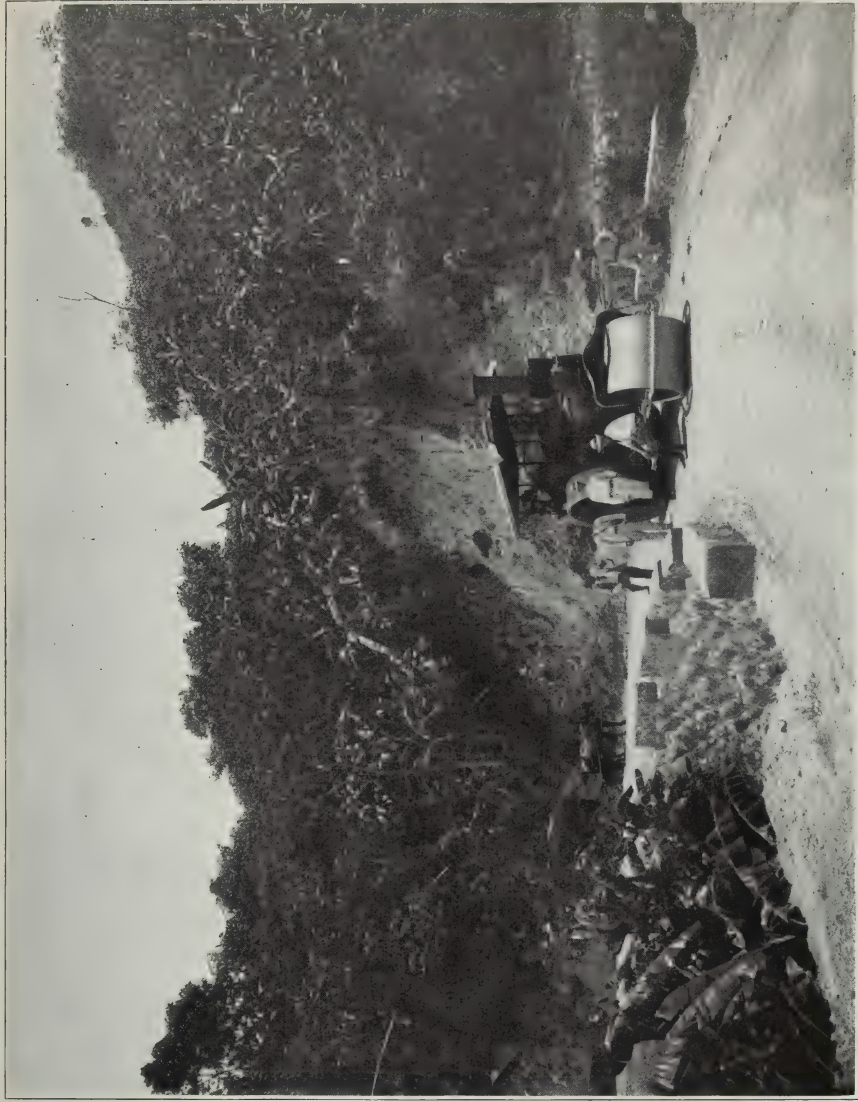
ROAD NO. 6, TALLONES-ADJUNTAS SECTION. GENERAL VIEW KILOMETER 3 TO KILOMETER 5.



FINISHED ROAD, BAYAMON-COMERIO.



FINISHED ROAD, BAYAMON-COMERIO.



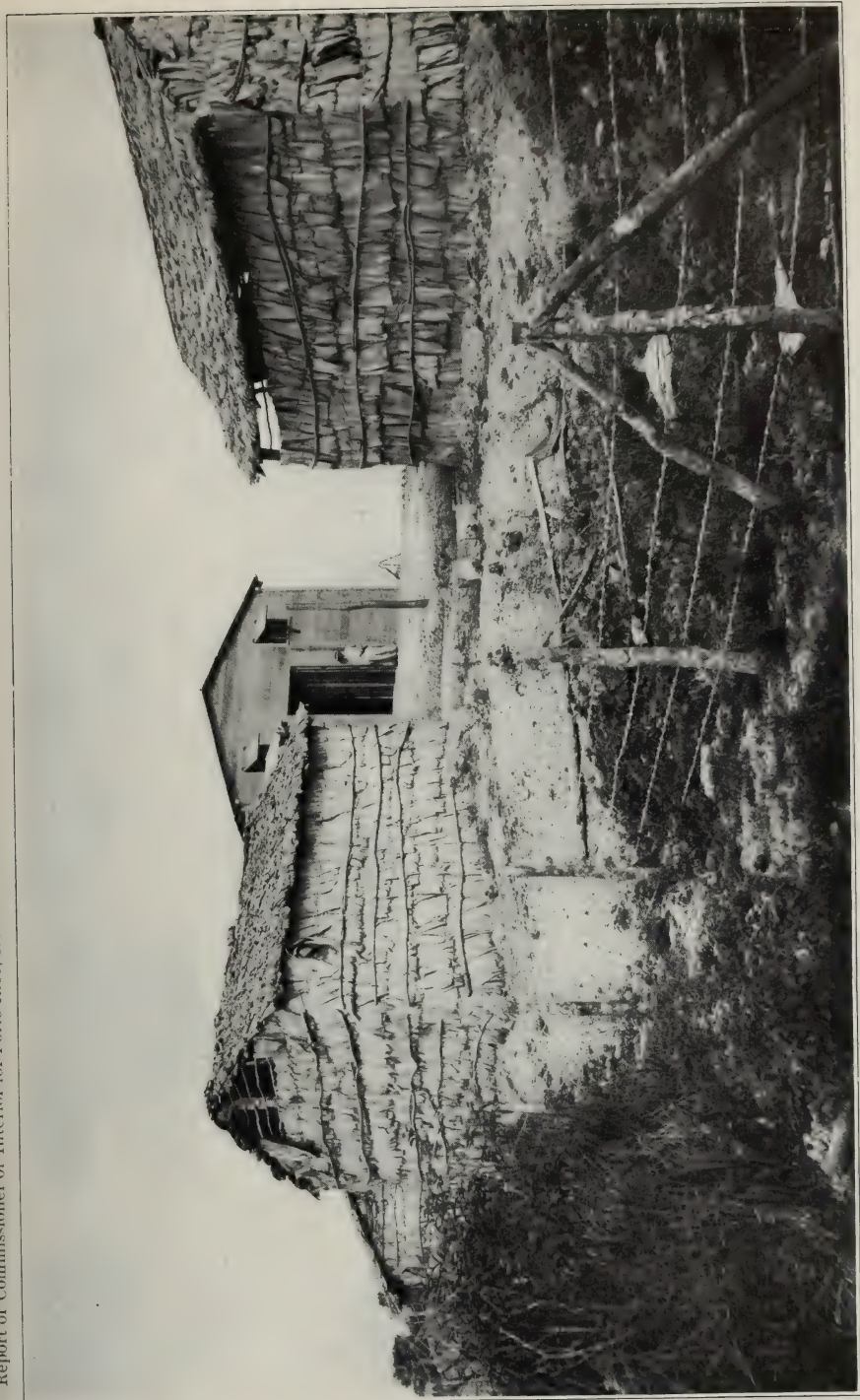
FINISHED ROAD, TALLONES-ADJUNTAS. STEAM ROLLER USED FOR CONSOLIDATION.



CONVICTS' CAMP AT HUMACAO.



CONVICTS' CAMP AT JAYUYA.



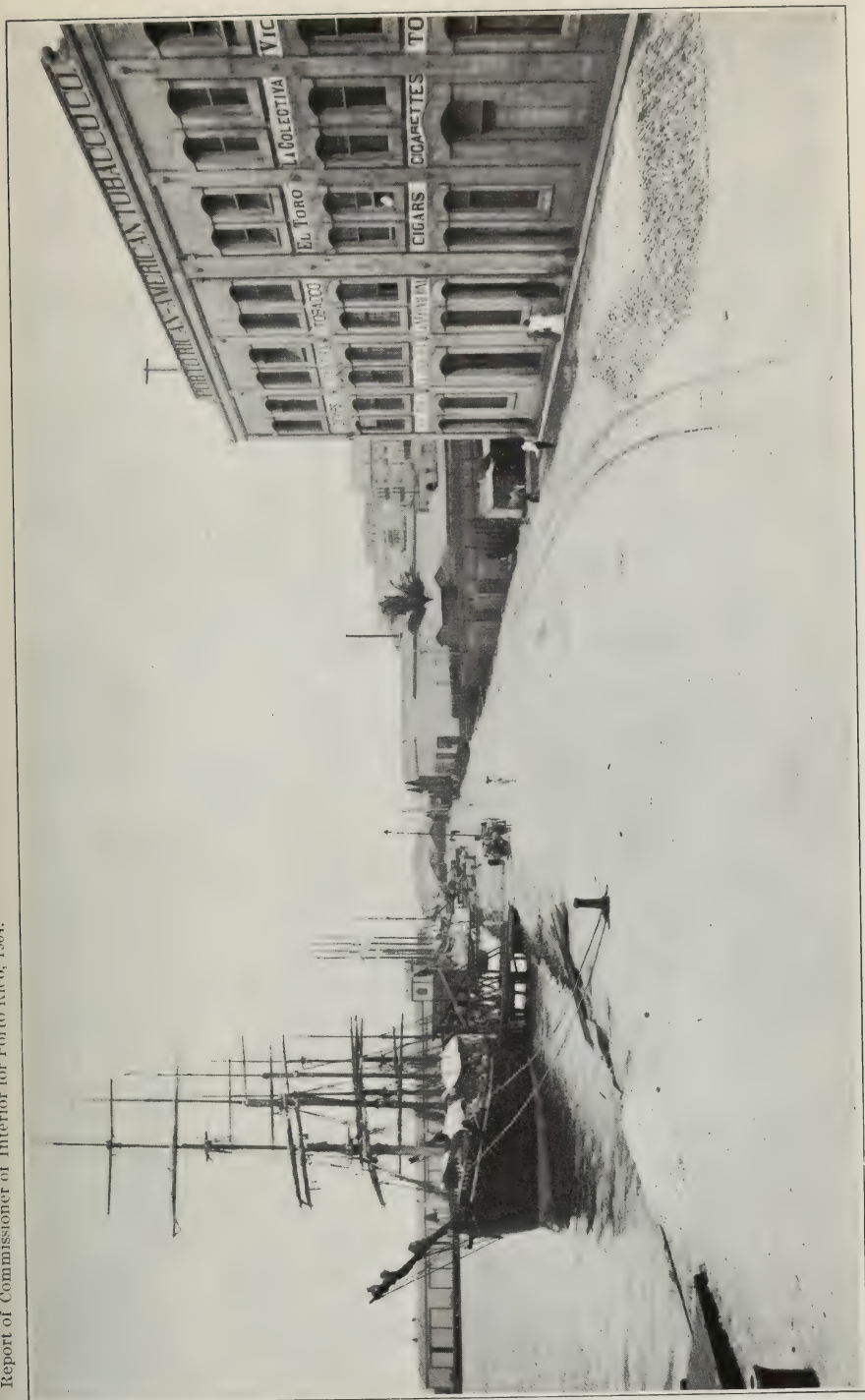
CONVICTS' CAMP AT JAYUYA.



CONVICTS' CAMP AT HUMACAO.



CONVICTS' CAMP, JAYUYA. INTERIOR OF BARRACKS.



RECONSTRUCTION OF THE STREET ALONG THE WATER FRONT OF SAN JUAN HARBOR.

MAP OF THE ISLAND OF PORTO-RICO.

TO ACCOMPANY ANNUAL REPORT FOR THE FISCAL YEAR 1903-1904
OF THE BUREAU OF PUBLIC WORKS OF PORTO-RICO

GENERAL PLAN OF INSULAR ROADS

- Road n° 1 — San Juan — Ponce-playa.
" " 2 — Cataño — Mayagüez.
" " 3 — Mayagüez — Guayama.
" " 4 — Cayey — Arroyo.
" " 5 — Caguas — Humacao-playa.
" " 6 — Ponce — Arecibo.
" " 7 — { 1st SECTION: Rio-Piedras — Humacao playa.
" " { 2d " Humacao — Arroyo.
" " 8 — Aguadilla — Lares.
" " 9 — Bayamon — Comerio & to road n° 1
" " 10 — Reyes-Católicos bridge — Barros.
" " 11 — Manati — Juana-Díaz and Morovis branch
" " 12 — Coamo — Barros.
" " 13 — Mayagüez — Arecibo
" " 14 — Mayagüez — Aibonito



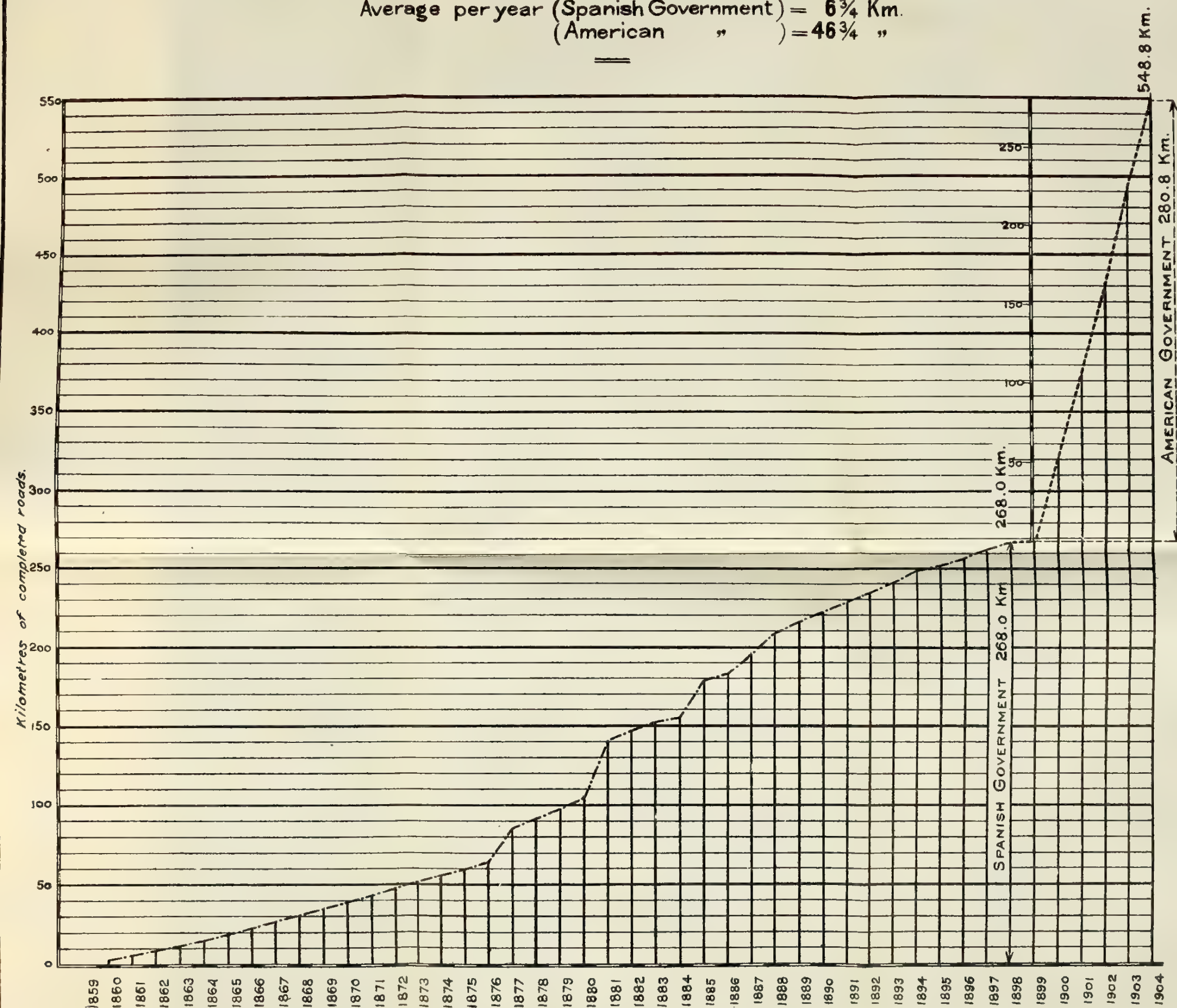
DIAGRAM

SHOWING ROAD CONSTRUCTION

IN THE ISLAND OF PORTO-RICO,

from the year 1859 to the present year 1904.

Average per year (Spanish Government) = $6\frac{3}{4}$ Km.
 (American ") = $46\frac{3}{4}$ "



REFERENCES

----- Roads constructed under the Spanish Government 1859-1898
 ----- " " " " American " 1898-1904

TO ACCOMPANY ANNUAL REPORT FOR THE FISCAL YEAR 1903-1904
 OF THE BUREAU OF PUBLIC WORKS OF PORTO-RICO

Bureau of Public Works
 San Juan, P.R., June 30, 1904.
P. J. Fernandez
 Acting Superintendent

REPORT OF THE COMMISSIONER OF EDUCATION
FOR PORTO RICO.

LETTER OF TRANSMITTAL.

EXECUTIVE HOUSE PORTO RICO,
San Juan, September 13, 1904.

SIR: I have the honor to transmit herewith the annual report of the commissioner of education for Porto Rico.

Respectfully,

BEEKMAN WINTHROP, *Governor.*

THE SECRETARY OF THE INTERIOR,
Washington, D. C.

REPORT

OF THE

COMMISSIONER OF EDUCATION FOR PORTO RICO.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF THE COMMISSIONER,
San Juan, P. R., September 13, 1904.

SIR: I have the honor to transmit herewith, through his excellency the governor of Porto Rico, my annual report for the fiscal year ended June 30, 1904, in pursuance of section 25 of the act of Congress, approved April 12, 1900 (31 Stat. L., 17), entitled "An act to provide revenue and a civil government for Porto Rico, and for other purposes," and also in pursuance of section 130 of the political code of Porto Rico, approved March 12, 1902.

Following the usual custom, the statistics given in this report cover the fiscal year, July 1, 1903, to June 30, 1904, in order to facilitate comparisons with the work of other departments of the government, which cover the same period, while at the same time the discussion of the problems of school work in which the department has been engaged covers the school year beginning September 28, 1903, and ending with the long vacation on September 25, 1904. The data contained in the report cover, as far as the records of this department permit, all of the points enumerated in your letter of June 24, 1904, inviting my attention to the requirements of the law and indicating specific information desired by your Department.

I am glad to be able to report substantial progress in all of the departments of public instruction in Porto Rico, a work in which many individuals and various corporate bodies have participated. I have been fortunate in having the assistance of an exceptionally able and faithful assistant commissioner in the person of Mr. E. W. Lord, and of a corps of division chiefs and district superintendents unexcelled for their fidelity and devotion to the public service. I desire also to express my special gratitude for the continued support and cooperation of Governor William H. Hunt from the beginning of my work as commissioner until the 4th of July, 1904, when his resignation as governor became effective, and I also desire to record my personal appreciation of the interest which Governor Beekman Winthrop has taken in educational matters since the beginning of his service in Porto Rico.

The widespread general interest taken in education by the people of Porto Rico continues to give evidence of a normal desire for progress which should be encouraged by all that this government can do, and which should receive the sympathy, aid, and support of the Government of the United States. The educational problems with which the government of Porto Rico must necessarily cope require the expenditure of money far beyond the resources of this country; and

in my humble judgment the Government of the United States, from a sense of justice as well as from a selfish regard for its own welfare in its future relations with the people of Porto Rico, should find a way consistently to aid and promote public education, at least until the time when there shall be a place in a common public school for every Porto Rican boy or girl of school age who is able to improve the opportunity to get an elementary education.

The record of the year's work in the department of education covers the school year of thirty-five weeks' actual teaching beginning September 28, 1903, to June 17, 1904. The statistical data are quoted for the fiscal year July 1, 1903, to June 30, 1904, and the discussion of general questions pertaining to education in Porto Rico is made to cover the vacation period as well and is brought down to the beginning of the current school year on September 26, 1904.

Substantial progress has been made in every department of our school work. The increase in the number of schools is not so large relatively as in previous years, but this is due to the fact that we have reached the maximum of appropriations which the condition of the insular treasury will permit, and that the sum of money available during the fiscal year under consideration was intended by the legislature to maintain only the number of schools opened during the previous year, with such absolutely necessary increases as were occasioned by the moving up of classes in special schools where the full course had been projected but not yet put in entire operation.

The improvement in quality of work done, the solidifying of the entire system, and the development of various essential and practical lines of work in manual training, industrial studies, and elementary agriculture are the most significant results of the year and enable us to say that the people of Porto Rico have undoubtedly received larger value per dollar expended on their school system during the year just passed than at any other period in their previous history, and there is reason to believe that additional progress in this direction can be made as teachers, superintendents, and school officials generally become more familiar with the new American system of education and with the workings of their school laws and school machinery.

SCHOOL STATISTICS.

No change has been made in either the school system as a whole or in the emphasis laid upon the development of the common school of primary grade where children learn the elements of reading and writing, both in the English and the Spanish languages, and begin the study of arithmetic, geography, history, drawing, and hand work. These schools constitute the great majority and for their support the major portion of all appropriations naturally go. Whether in the country or in the town the children enter these schools at 5 or 6 years of age and the vast majority, by reason of their poverty, are not able to remain longer than two or three years. In the towns these schools are all graded, while in the country or rural schools the work is all done under one teacher, who usually divides the pupils into two or three groups, being a rough attempt at grading. The town schools have a course of study carefully mapped out for each year and covering eight grades, or eight years of school life, but usually the number of pupils in the upper grades is so small that the fourth and fifth

and the sixth and seventh can be put together in one room and taught by one teacher. To any pupil who passes through the fifth grade there is open the opportunity to enter one of the industrial schools, where he will get a training, as practical as possible, along manual training lines.

It is also distinctly utilitarian and approaches that of a trade school, fitting the pupil for some definite occupation. To the pupil who passes through the eighth grade and receives a certificate of graduation from the public schools, there is open in the three larger towns of the island a high school course covering four years and giving a preparation for an American college or for any good professional school. The total number who have been able to avail themselves during the past year of high school privileges is very small, and we have not felt justified in spending any large sum of money upon the enlargement or enrichment of the high school course while the need was so great for an increased number of the elementary schools of the first and second grades.

A few well-organized kindergarten schools have been maintained. But for the same reasons as stated above it has been deemed wise to convert these into primary schools of the first grade, making some use of kindergarten methods, but still enabling teachers to take the full quota of 50 pupils and thus reducing the per capita cost, and therefore, with the same money, giving school facilities to a larger number of children.

After consultation with the Bureau of Education at Washington, some changes were made in the methods of collecting school statistics, and therefore a few items in the following résumé and in the detailed statistical tables in the appendix can not be traced back through previous reports. As a rule, however, all the essential comparisons with previous years can still be made, and attention will be called later to the chief points where comparisons may be misleading. The following is a summary of the more important school statistics:

Résumé of school statistics, school year 1903-4.

1. Total population of island :	
Census of 1899	953, 243
Estimated 1904 (basis, census of 1883 and 1899)	1, 012, 775
2. Total school population (5 to 18 years) :	
Census of 1899	322, 393
Estimated 1904 (basis, census of 1883 and 1899)	393, 786
3. School districts in the island ^a	19
4. Superintendents in the island ^a	19
5. Municipalities in the island	46
6. Local school boards in the island	46
7. Members of each local school board	3
8. Common schools open during the year (graded, 497; rural, 563)	1, 060
Special schools open during the year	53
Total schools open during the year	1, 113
9. Average number of common schools open each term	1, 022
Average number of special schools open each term	51
Average number of schools open each term	1, 073
10. Average number of common schools per district during the year ^a	56
11. Maximum number of buildings in use for schools during the year (town, 140; rural, 531; agricultural, 14)	685

^a Vieques (10 schools) included as a separate district under the supervision of the examining superintendent.

12. Average number of American teachers employed each term, not including special schools-----	120
13. Average number of teachers employed in the common schools each term-----	1, 118
Average number of teachers employed in the special schools each term-----	54
Average number of teachers employed in all schools each term-----	1, 172
14. Average number of teachers per district during the year, not including special schools ^a -----	63
<hr/>	
15. Total number of different teachers employed in the common schools during the year:	
White—	
Males -----	664
Females -----	411
Total -----	1, 075
<hr/>	
Colored—	
Males -----	79
Females -----	50
Total -----	129
<hr/>	
White and colored—	
Males -----	743
Females -----	461
Total -----	1, 204
Total number of different teachers employed in the special schools during the year-----	61
<hr/>	
Total number of different teachers employed in all schools during the year-----	1, 265
<hr/>	
16. Total number of American teachers employed in the common schools during the year:	
Males -----	47
Females -----	92
Total -----	139
<hr/>	
17. Number of pupils enrolled in all schools, including special schools:	
White—	
Males -----	27, 847
Females -----	19, 242
Total -----	47, 089
<hr/>	
Colored—	
Males -----	9, 547
Females -----	6, 920
Total -----	16, 467
<hr/>	
White and colored—	
Males -----	37, 394
Females -----	26, 162
Total -----	63, 556
Including reenrollments or duplicates-----	2, 388
<hr/>	
Total number of different pupils actually enrolled-----	61, 168

^a Vieques (10 schools) included as a separate district under the supervision of the examining superintendent.

17. Number of pupils enrolled in all schools, including special schools—Continued.	
Total number of different pupils actually enrolled in the common schools -----	57, 683
Total number of different pupils actually enrolled in the special schools -----	3, 485
18. Average number of pupils enrolled each term in the common schools -----	49, 206
Average number of pupils enrolled each term in the special schools -----	2, 567
Average number of pupils enrolled each term in all schools -----	51, 773
19. Average number of pupils enrolled, per school, during the year, not including special schools -----	58
20. Average number of pupils per district during the year, not including special schools nor reenrollments ^a -----	3, 219
21. Average total attendance per month (of twenty school days) in each school, not including special schools -----	755
NOTE.—Common schools include graded schools and rural schools; special schools include high schools, industrial schools, night schools, agricultural schools, and kindergarten schools.	
22. Average daily attendance during the year for the whole island in the common schools -----	39, 928
Average daily attendance during the year in the special schools --	1, 870
Average daily attendance during the year in all schools -----	41, 798
23. Average daily attendance in each common school during the year -----	38
Average daily attendance in each special school during the year --	35
Average daily attendance in all schools, per school, during the year -----	38
24. Average daily attendance per district during the year, not including special schools ^a -----	2, 101
25. Total number of weeks the schools were kept during the year ---	35
Number of days in each school week -----	5
Number of school days in the year -----	175
Number of school days in the year, excluding legal holidays ---	170
26. Average number of days each school was actually kept:	
Common schools -----	157
Special schools -----	156
27. Per cent of estimated total population enrolled in all schools ---	6.3
Per cent of total population (census of 1899) enrolled in all schools -----	6.7
28. Per cent of estimated school population enrolled in all schools ---	16.1
Per cent of school population (census of 1899) enrolled in all schools -----	19.7
29. Per cent of estimated total population attending daily -----	4.1
Per cent of total population (census of 1899) attending daily ---	4.4
Per cent of total number of pupils enrolled during the year attending daily:	
Common schools -----	66.5
Special schools -----	53.3
All schools -----	65.7
30. Per cent of estimated school population attending daily -----	10.6
Per cent of school population (census of 1899) attending daily --	12.9
31. Per cent of colored pupils in the total enrollment -----	25.9

^a Vieques (10 schools) included as a separate district under the supervision of the examining superintendent.

32. Per cent of colored teachers in the total number employed, not including teachers in special schools.....	10.8
33. Per cent of men in teaching force, not including teachers in special schools.....	61.7
34. Per cent of increase in the average enrollment per school over the average enrollment per school during 1902-3 (not including special schools).....	26.1
Per cent of increase in the average daily attendance per school over the average daily attendance per school during 1902-3:	
Common schools.....	5.6
Special schools.....	40.0
Per cent of increase in the average daily attendance in all schools for the whole island over the average daily attendance in all schools for the whole island during 1902-3.....	14.8
35. Number of pupils enrolled in the private schools of the island:	
White—	
Males	1,093
Females	2,622
Total	3,715
Colored—	
Males	437
Females	689
Total	1,126
White and colored—	
Males	1,530
Females	3,311
Total	4,841
36. Per cent of estimated total population enrolled in the private schools .....	.5
Per cent of estimated school population enrolled in the private schools	1.2
Per cent of population enrolled in the public schools enrolled in the private schools	7.6
Per cent of colored pupils in the enrollment of the private schools	23.0
37. Per cent of estimated school population enrolled in both public and private schools of the island.....	17.0
38. The monthly salary of teachers, as fixed by law during the year 1903-4, has been as follows: ^a	
Rural teachers—	
Second class.....	\$30.00
Third class.....	\$25.00
Graded teachers, and teachers of English—	
Second class.....	\$50.00
Third class.....	\$45.00
Principal teachers—	
Second class.....	\$75.00
Third class.....	\$70.00
To all of which amounts are added allowances for house rent, as follows:	
Rural teachers, not less than \$3, nor more than.....	\$8.00
Graded, principal, and special teachers, not less than \$10, nor more than.....	\$15.00
^a Special teachers, as per special contract.	
39. Estimated value of all insular school buildings ^b	\$507,012.21

^a Special teachers, as per special contract.

^b Including every expense incurred within the last five years in connection with the acquisition of property by the insular government and with the erection and maintenance of school buildings.

40. Average cost of the common schools, not including special schools (but including cost of administrative expenses of the department of education in the insular government, and not including the expenditures of the municipalities), has been as follows:

Per pupil enrolled.....	\$8. 17
Per pupil attending.....	\$11. 80

- Average cost of all schools, including special schools (and including the administrative expenses of the department of education in the insular government, but not including the expenditures of the municipalities), has been as follows:

Per pupil enrolled.....	\$9. 12
Per pupil attending.....	\$13. 61

41. Average cost of the common schools, not including special schools, to the municipalities (in addition to the above cost to the insular government, has been as follows: ^a

Per pupil enrolled.....	\$3. 17
Per pupil attending.....	\$4. 57

There have been certain noticeable changes during the past school year. There was an increase in the average enrollment per school of 26.1 per cent, an increase in the average daily attendance per school of 5.6 per cent for the common schools and 40 per cent for the special schools, and an increase in the average daily attendance in all schools of 14.8 per cent (see section 34 of the résumé). There has also been a decrease in the number of different pupils enrolled during the year of 12.9 per cent. In addition to the above there was an increase in the average cost to the insular government, per pupil enrolled, of 2.5 per cent, and a decrease in the same item, per pupil attending, of 20.1 per cent, also the increase in the average cost of the schools to the municipalities (in addition to the cost to the insular government) of 36.1 per cent per pupil enrolled and 4.6 per cent per pupil attending, in comparison with the same statistical items for the year 1902-3.

The fact that the total enrollment has fallen off slightly is partly due to the shortening of the school year from thirty-six weeks to thirty-five, which was made necessary by the arrangements for the Porto Rican teachers' trip to the States, an event which, in the judgment of everyone, was fraught with far greater possibilities for good to the entire school system, and, therefore, to the children of Porto Rico, than the additional week of teaching. There is also some doubt whether, if we were able to give the maximum enrollment, excluding duplicates, for the entire school year instead of for each of the three terms, it would not show as large or a larger number of children reached at some time during the school year, as indicated by our maximum enrollment of the previous year. However this may be, there is every reason for satisfaction at the marked improvement shown in all the data affecting the attendance of pupils in the schools. A few comparisons with previous years will be interesting.

The maximum number of schools opened during the year just closed was 1,113, as compared with 1,014 for the previous year. These schools were manned by 1,265 teachers, being the total number of different teachers employed in all the schools during the year, as compared with 1,116 the previous year and 939 during the year 1901-2. The average number of teachers employed in all schools each term was 1,172, of whom 120 were American teachers, devoting their time chiefly to the teaching of the English language, and the remainder

^a The municipalities incurred practically no expense for the special schools.

were native Porto Ricans. This proportion of 1 American teacher to 8 native teachers has been maintained in our schools for several years. The total enrollment, excluding duplicates or reenrollments, was 61,168. This is based upon the reports for each of the three terms of the school year, and therefore does not show the maximum number of children who were in school for part of the school year and whose names did not appear upon the rolls for each term.

The figures for the previous year for the total enrollment, excluding duplicates or reenrollment gave 70,216, but this included every separate name entered upon the school-roll books from the first day of the school year to the last, and the apparent falling off of 10,000 may be due entirely to this fact. This reasoning is further supported by the statistics of attendance. The average daily attendance in all schools during the past year was 41,798, while for the previous year it was only 36,308. The percentage of the total population enrolled in schools was 6.7, while the percentage of school population enrolled was 19.7 per cent, as based on the census of 1899, the last official census, while the percentage of the estimated school population, as estimated for the current year, enrolled in all schools was 16.1 per cent. The percentage of estimated school population attending daily was 10.6 per cent, as compared with 9.6 per cent the last year. This means that less than one in five children of school age are reached at all by the public school, and that only one in ten is in regular attendance. These figures could be easily doubled, and perhaps trebled or quadrupled, if the financial resources of the island would permit the increase of appropriation for the maintenance of common schools of primary grade.

The Department has for the first time this year collected official statistics of private schools, which were, of course, obtained only by the courtesy and voluntary cooperation of the private schools in answering the circular letter sent out by the Department. They show an enrollment of a little less than 5,000, or less than one-twelfth of the total enrollment of the public schools. Therefore they do not add greatly to the school facilities offered to the children of Porto Rico, and the Government is left face to face with the problem of four-fifths of the children of Porto Rico growing up without the opportunities of a common school education.

THE PORTO RICAN TEACHERS' SUMMER STUDY TRIP TO THE UNITED STATES.

No event in the educational world in Porto Rico aroused more intense interest nor was fraught with greater possibilities for the development of a higher professional spirit among our teachers than the project that was carried to a successful completion and resulted in an eight-weeks' trip of 540 teachers to the United States and to the summer schools of Harvard and Cornell universities. To carry out this project work was begun in the summer of 1903, when during a vacation trip of the Commissioner, to the United States, it was found that the educational authorities of our American colleges could be relied upon for effective cooperation. There was a precedent in the visit of the Cuban teachers during the summer of 1900, but that was arranged for while public interest was still centered in the Spanish-American war, and at a time when the use of the United

States Government transports was obtained by permission of the Secretary of War. Harvard University extended an official invitation to the teachers of Cuba, and the funds necessary to meet the cost of the expedition were raised under the direction of the university authorities by public subscription and were guaranteed in advance by the university itself.

President Eliot expressed himself as gratified at the general results of the Cuban expedition, as did also the Secretary of War and others who were in a position to know of the far-reaching results upon the school work of Cuba. If the bringing of approximately 1,200 Cuban teachers to the United States had been successful, there seemed to be additional weighty reasons why as much should be done for the teachers of Porto Rico. Porto Rico is definitely and for all time a part of the United States. Its people are loyally American, and its school system is American. Its teachers are teaching American history and training future American citizens. It was not expected that they could obtain a technical or professional training from six weeks' residence in a summer school, but it was believed that they would obtain a strong stimulus in the study of the English language, in which they are required to pass an annual examination, and that they would get a clear concept of American geography and American history, and of American life and institutions from even so brief a residence at one of the great American universities, and that their contact with American homes and the American people would prove in every way beneficial. In all of these essential purposes the expedition was successful. The teachers were carefully selected and were better prepared than their Cuban predecessors, by reason of their several years' service under the American Government in Porto Rico, to profit by their experiences.

In order to organize this expedition, it was necessary first to secure an act of Congress to authorize the use of the army transports. The President, to whom the matter was first presented, took a cordial interest and gave the project his hearty support. A joint resolution passed both houses, and read as follows:

The Secretary of War is hereby authorized, during the year nineteen hundred and four, at such time as requested by the governor of the island of Porto Rico, to transport from the island of Porto Rico to the United States and to return from the United States to Porto Rico on one of the vessels engaged in the transport service of the United States not to exceed six hundred of the Porto Rican teachers in the public schools of said island, and in addition thereto not to exceed twenty-five necessary attendants, such teachers and attendants to be selected by the commissioner of education of said island, for the purpose of attending the various summer schools of the universities, colleges, and other institutions of learning in the United States during said year: *Provided*, That a subsistence charge of one dollar per day for each day on such vessel shall be collected from each of such persons so transported; and that the Government of the United States shall not be liable for, and shall not defray, the expenses of said teachers and attendants, or of any such of them, incurred while in the United States.

With transportation provided it was necessary to devise some plan by which the expense of the expedition could be met. Congress was not disposed to vote an appropriation or to do more than provide free transportation in accordance with the resolution referred to above. The legislature of Porto Rico authorized the commissioner of education to accept this offer of transportation and to organize the expedi-

tion, making use of his office machinery, but not making the government of Porto Rico liable for the expenses of the expedition. The insular legislature would gladly have made an appropriation for this purpose if its financial resources had not been already taxed to the utmost. It was estimated that the cost of the expedition, for meals on the transport, board, lodging, and tuition for six weeks at a summer school, and one week's travel enabling the teachers at least to see the cities of Boston, New York, Philadelphia, and Washington, would be approximately \$100 per capita.

It was decided to ask the teachers themselves to contribute, in proportion to their ability, one month's salary to a special trust fund to be used to defray the general expenses of the expedition, and to attempt to raise the balance necessary by public subscription in the United States. The teachers responded promptly and cheerfully to this request, although it involved on the part of many very great personal sacrifices, and their total contributions amounted to \$21,175.57. Over \$20,000 additional was contributed by the people of Boston, New York, and Philadelphia, half of this amount coming from the people of Boston, who, at the request of President Eliot and a strong local committee, responded most liberally to our appeal. From the very beginning President Eliot, of Harvard, took a keen interest and gave his cordial indorsement at every stage in our plan. Under date of April 15 President Eliot wrote to the commissioner of education as follows:

HARVARD UNIVERSITY,
Cambridge, April 15, 1904.

MY DEAR SIR: I was very glad to hear from you yesterday that you have received substantial encouragement for your project of bringing 600 Porto Rican teachers to the United States this summer for an eight-weeks' period of instruction and travel. Although the president and fellows of Harvard College did not feel able this year to undertake to raise the money required for the execution of your beneficent project, they are disposed to put the facilities of the university at your disposal for the accommodation and instruction of all the Porto Rican teachers you may bring to this country, or of any part of them. It would, in my judgment, be necessary to provide for your teachers a separate corps of instructors, because the courses of instruction regularly given in the Harvard Summer School for six weeks from the 5th of July would not be well adapted to the needs of your teachers. This separate set of teachers the university will undertake to provide, and it will also undertake to make all the arrangements for the suitable accommodations of your teachers in regard to rooms and meals, providing that you succeed in raising the money which these things will cost. I am sure, from our experience with the Cuban teachers in the summer of 1900, that the existing facilities in Cambridge are ample for this purpose without causing any interference with the regular summer school which the university maintains. My observation of the results of the Cuban expedition of the year 1900 convinces me that your project on behalf of Porto Rican teachers is practicable and also wise from every point of view.

Very truly, yours,

CHARLES W. ELIOT.

With this indorsement of the wisdom of the undertaking from so high an educational authority as the president of Harvard University, based in a measure on the results of the visit of the Cuban teachers to that institution, the people of Boston soon took an interest in providing the necessary funds. That the burden of entertainment might be appropriately distributed and perhaps greater advantages accrue to the Porto Rican teachers by not having too many located in one place, it was deemed wise to enlist the interest of other insti-

tutions and to divide the party into two sections, at least. Through the kindly efforts of Dr. Charles De Garmo, professor of pedagogy at Cornell University, who as a result of his visit to Porto Rico the previous year to take part in our educational conferences was personally acquainted with many of the teachers and with their needs, the interest of President Schurman and the officials of Cornell University was aroused. This resulted in an offer from Cornell to take a section not to exceed 200, to provide special instruction, and to place one of its college dormitories at the disposition of the women teachers and provide board and lodging near the campus for the men.

Both at Harvard and at Cornell all extra instruction was provided for at cost price, but all the facilities of both universities, open during this year's summer course, were, as far as available, given free. It was agreed that the special instruction provided at Harvard should not cost more than \$12.50 per teacher, and that at Cornell not more than \$10. The officers of both institutions agreed to provide suitable rooms and table board at a cost not to exceed \$5 per week for six weeks. We were, therefore, relieved of the necessity of a great deal of administrative work, and a corresponding burden was assumed by the institutions where we were guests. Too much can not be said by us in recognition of the scrupulous care for the health and comfort of the teachers, and for the hospitality of the institutions, as well as the general public, in both Cambridge and Ithaca. Considering the limitations in the expense which could be incurred, the results achieved were remarkable, and were obtained only by patient hard work on the part of all persons concerned, who vied with each other in doing all in their power to show these teachers that they were the nation's guests and to make them feel at home in this country.

The same spirit pervaded those who were called upon to assist in a financial way. Strong committees were organized in Boston, New York, and Philadelphia, composed as follows:

Boston.—James J. Storrow, chairman; Henry L. Higginson, treasurer; Arthur F. Estabrook, Edward A. Filene, Edwin Ginn, Jerome Jones, William I. Sedgwick, Edward R. Warren, Sumner B. Pearmain.

New York.—William H. Baldwin, jr., chairman; Charles S. Fairchild, treasurer; Isaac N. Seligman, Charles H. Allen, Frank A. Vanderlip, Robert C. Ogden, Edward T. Devine.

Philadelphia.—Charles Emory Smith, chairman; Henry Tatnall, treasurer; James T. Young, Edward Brooks, Morris L. Clothier, John H. Converse,* Franklin S. Edmonds, Theodore N. Ely, George D. Gideon, Samuel F. Houston,* William W. Justice, Samuel M. Lindsay, William R. Nicholson, Martin G. Brumbaugh, James L. Pennypacker, Thomas Roberts, jr., Joseph G. Rosengarten,* William T. Tilden, Theo. C. Search,* Walter George Smith, Joseph Wharton, George Woodward,* Franklin H. Kirkbride, of which those marked with a star served as a finance committee under the chairmanship of Mr. Samuel F. Houston.

The City Trust Company of Boston, the National City Bank of New York, and the Franklin National Bank of Philadelphia served as depositories to receive and report subscriptions and rendered other valuable service. The leading newspapers of the several cities cooperated in every possible way, giving their columns to descriptive matter and to announcements relating to the expedition, and made earnest appeals for funds through their editorial columns. This was exceptionally true of the Boston Transcript and the Boston Herald, also of the Philadelphia Press, although mention of these

three papers is not to be interpreted as any lack of appreciation of the services rendered by many others too numerous to mention.

The organization of the expedition in Porto Rico was a work devolving upon the department and entailing a most arduous labor, usually performed after office hours by the officers of the department. The commissioner and the assistant commissioner assumed general administrative control of the expedition, one or the other remaining with the expedition from the time it left Porto Rico until its return.

The special duties of business manager were assigned to John R. Wildman, the disbursing officer and chief of the division of accounts in the department. His reports upon the organization of the expedition will be found in the appendix of this report. With becoming modesty, they fail to describe the arduous work he himself performed and the skill and executive ability which he manifested throughout, and to which the successful accomplishment of our task owes so much. Mr. Wildman assumed personal charge of the Harvard section, although responsible for the business management of the entire expedition. He was ably assisted by John W. Zimmerman, school superintendent of the district of Guayama, who was appointed assistant business manager and took charge of the Cornell section. For the office work of the Harvard section there were detailed from the department John J. Fitzgerald, Percy F. Allen, Gail S. Nice, Miss K. B. Heller, Guillermo Gonzalez-Font, and Amancio Perez, and for the Cornell section, Miss Wilhelmina Test. The following general interpreters were assigned to each section, made up in part by persons detailed from the department service and of volunteers from among the teachers or Porto Rican students in the States:

Cornell section.—A. F. Martinez, Henry C. Rexach, and Miss Carmen Skerret.

Harvard section.—L. R. Sawyer, Donald Mackenzie, Alejandro Guillot, J. M. Gonzalez, and Mrs. V. Texera.

The teachers were divided into groups, each group containing approximately 50, and placed under the direct charge of a section chief. The following persons served as section chiefs, all of them being recruited from among the school superintendents, hence persons known to the teachers and especially competent to look after their welfare: L. P. Ayres, E. N. Clopper, R. R. Lutz, Enrique Landron, D. F. Kelly, S. W. Eckman, John Mellowes, C. A. Reichard, J. W. Smith, and A. Fourcaut.

A committee of chaperones was appointed, under the chairmanship of Mrs. José A. Lugoviña and the assistant chairmanship of Mrs. de Muro, comprising the following persons: Mrs. John R. Wildman, Mrs. Fourcaut, Mrs. Concepcion de Moret, Miss Sara L. Merrill, Miss Ruth A. Gottlieb, and several others who assisted or substituted during part or all of the period when the expedition was away from Porto Rico. All these persons served without compensation other than the payment of their actual expenses.

The arrangements made by the War Department for the comfort of the teachers on the transports were excellent, the food good, and the officers in charge of the transport service entered into the spirit of the expedition with the same disposition manifested by those everywhere to do all in their power to make the trip of the teachers pleasant, profitable, and successful. The two transports, the *Sumner* and the *Kilpatrick*, sailed from San Juan Harbor on the morning of

June 26. The *Kilpatrick* proceeded directly to Boston and the *Summer* to New York. The teachers were landed in Boston and New York, respectively, on Saturday morning, July 2, and were safely installed at their quarters at Cambridge and Ithaca before nightfall. President Eliot at Harvard and President Schurman at Cornell both made inspiring addresses of welcome to the teachers and pointed out the possible advantages to be expected from a diligent use of the opportunities they were able to place at their disposal. The Cornell section remained at Ithaca until the morning of August 6, when its members were taken on a special train and again boarded the transport, which sailed on the evening of the 6th for Boston, where the two sections were joined for the remainder of the trip.

The Harvard section remained in Boston until August 9, when the entire expedition sailed on the transports for Philadelphia. During their stay at Harvard and Cornell, respectively, the teachers not only enjoyed the social side of their visit and participated in a great deal of the hospitality extended to them, but the great majority of them devoted themselves to hard work. Of the progress they made in their studies, some account is given in the report of Mr. Jerome D. Greene to the president of Harvard University, an extract from which will be found in the appendix to this report. Acknowledgment should also be made here to Mr. Chas. H. Ames who organized independently of the school a special class in English for a few teachers less advanced in a knowledge of the English language and interested in a special method of acquiring what was for them a foreign tongue. To Mr. Greene, who represented President Eliot in the administration of the summer school, and in its relation to the Porto Rican teachers, and to Doctor De Garmo, the dean of the Cornell summer school, who took an exceptionally keen interest in the visiting group of Porto Rican teachers, the gratitude of the entire expedition is due in an exceptional degree.

When the party was united in Boston and left on August 9 for a week's travel before sailing for Porto Rico, it was with sincere regret at the severance of the pleasant relations established by many of the Porto Rican teachers with their American colleagues and friends, and with eager anticipations of the opportunity to see something more of life in the United States, with which they now felt better acquainted. Upon their arrival in Philadelphia they were taken to Washington, where they spent a most enjoyable day in visiting the Capitol and the Congressional Library. They were appropriately entertained at luncheon at the Arlington Hotel through the generosity of a representative committee of citizens headed by Hon. H. B. F. Macfarland, one of the Commissioners of the District, and Dr. Roland P. Falkner, at that time already appointed as my successor in Porto Rico, to take office on October 1, and by prominent representatives of the Trades League and of the Business Mens' Association of Washington. After luncheon and a brief period of speechmaking, the entire party were received at the White House by President Roosevelt. The cordiality of his reception made a deep impression, as likewise did his earnest words when he addressed the teachers in a body, as follows:

I wish to greet you with all my heart here at the national capital. It is my earnest wish, as it was the wish of my lamented predecessor, and it is the wish of the people of the United States, that only unmixed good shall come to the people of Porto Rico because of their connection with this country.

I greet you with peculiar pleasure and interest, because this body and those who, like you, are engaged in the work of education in Porto Rico, are doing that work which more than any other is vital to the future of the island. We must have education in its broadest and deepest sense—education of the heart and soul, as well as of the mind—in order to fit any people to do its duty among the free peoples of progress in the world. And I trust that you here, you teachers, you men and women engaged in preparing the next generation to do its work, realize fully the weight of responsibility resting upon you. Accordingly as you here in this room and your colleagues do your work well or ill depends as to how the next generation of Porto Ricans shall do their work in the world.

I am glad to see you because of the very fact that there is this responsibility upon you. Nothing in this world comes to people who will not work. Nothing worth the having comes to those who do not or are not willing to make an effort to get it; and I hail you here because you represent that great body of your fellows in Porto Rico who are making every effort to fit themselves physically, mentally, and morally to do the best work of which they are capable in the world. I greet you and welcome you here.

The educational value of that one incident in the history of the expedition to a people learning their first lessons in democracy was so great and the immediate impression, which will not pass away, but will be transmitted to thousands of children in this newest section of the United States, was so profound that, in my judgment, it alone was worth all of the effort and expense involved in the undertaking of this trip. Of the return to Philadelphia and the cordial reception at the University of Pennsylvania, whose vice-provost, Dr. Edgar F. Smith, in the absence of Provost C. C. Harrison, met the entire party with a cordial greeting, and the masterly and patriotic address of ex-Postmaster-General Smith, delivered in Independence Hall; and the exciting experiences of the day spent in New York, where, with the aid of a specially chartered steamer plying in the harbor, and the public automobiles in the park and along Riverside Drive, many of the teachers gathered a great deal of valuable information in their altogether too brief stay in these different places, we have not time or space to enlarge upon. Our thanks are due to the Commissioner of Charities in New York for the use of a department steamer and to the president of the Dreamland Company for a very pleasant excursion to Coney Island in the evening and for the hospitality of Dreamland. In Philadelphia a representative of the mayor, Hon. John Weaver, conveyed an official welcome. In New York the acting mayor, Hon. Charles V. Fornes, president of the board of aldermen, presented an appropriate address of welcome. Dr. William H. Maxwell, superintendent of schools, opened up the largest school building in the world and provided appropriate exercises, in which over 1,000 children participated. It was a somewhat tired out but enthusiastic party that gathered on board of the transports on August 16 and sailed away for home in Porto Rico, where the entire party arrived on August 22 and were sent to their respective homes without a serious accident or a serious case of illness having occurred to mar the entire trip.

At the date of this writing it is impossible to give more than a brief summary of the receipts and expenses incurred. The following statement will show the condition of the account on September 12. Since that time subscriptions have been paid in sufficient to meet the entire overdraft of \$1,392.71 and to meet over half of the outstanding liabilities. About \$500 will be needed to balance the entire account when all of the outstanding bills are received and settled and all of

the subscriptions paid. To meet this apparent deficit there is a guaranty fund of \$1,900 pledged by Joseph Wharton, of Philadelphia, and R. Fulton Cutting, Isaac N. Seligman, and Messrs. Boulton, Bliss, and Dallett, of New York. Every dollar of money received and of money expended has been accounted for by an elaborate system of government vouchers, corresponding to the system employed in the administration of public funds, and the entire account will be audited either by the government or by professional auditors.

Porto Rican teachers' summer school fund statement.

RECEIPTS.		DISBURSEMENTS.	
Contributions, teachers, etc., in Porto Rico	\$21,175.57	Board, Harvard teachers	\$5,818.00
Subscriptions:		Instruction, Harvard teachers	4,075.00
Boston	9,197.00	Lodging, Harvard teachers	3,208.97
New York	2,500.00	Subsistence on transports	10,917.53
Philadelphia	1,032.00	Railroad transportation, Cornell division	1,013.30
Cash on hand	302.73	Board and lodging, Cornell	3,793.29
Funds transferred, New York to Boston (?)	210.00	Instruction, Cornell	1,450.00
To balance	1,392.71	Subsistence, general staff	940.20
		Travel, general staff	171.28
		Contingent expenses	863.44
		Entertainment of teachers	2,190.00
		Repayments to teachers	1,369.00
Total	35,810.01	Total	35,810.01
1904.			
Sept. 12. To overdraft			\$1,392.71
To outstanding liabilities			1,032.70

SEPTEMBER 12, 1904.

I certify the above to be a true and correct statement of all receipts and disbursements on account of the Porto Rican teachers' summer school fund.

J. R. WILDMAN, *Disbursing Officer.*

Approved:

S. M. LINDSAY,
Commissioner of Education.

THE UNIVERSITY OF PORTO RICO.

The university was established by an act of legislature (March, 1903), which chartered the institution and provided for a board of trustees, of whom the governor of Porto Rico was made honorary president and the commissioner of education president. The commissioner was also made chancellor of the university. This act turned over to the board of trustees the Insular Normal School, located at Rio Piedras, consisting of the main normal school building, a practice school building, an agricultural station building, and about 100 acres of land, on which was also located a principal's residence, together with equipment in these buildings and the unused appropriations for the normal school for the remainder of the fiscal year after the date on which the act took effect. The Insular Normal School became then the normal department of the university, and was the only department in operation at the time the university was established.

This legislation was proposed in response to a demand for professional schools. It was not considered advisable to establish such schools at the expense of the insular government, in view of the limited resources and the great demand for an increased number of common schools of primary grades. The establishment of the normal school was a necessary step in the development of the public

school system, one of the prime necessities of which was the training of better prepared teachers.

It was thought that if a full-fledged university organization along the lines of our best State universities were provided, and a normal school incorporated as one of its departments, with the understanding that it and it alone of all the departments of the university that might be established by the board of trustees for the present should be considered eligible for legislative appropriations, and should be required to give free tuition to those preparing for the career of teachers, that the board might on its own initiative be able to establish an agricultural department in such form as to be eligible for the aid now given by the Federal Government at Washington through the Morrill and Hatch acts for the encouragement of agricultural education in the various States and Territories. It was also believed that such a university organization, if managed by an active and energetic board of trustees, would be the recipient of gifts from time to time from the wealthy citizens of Porto Rico and from some of our educational philanthropists in the United States, which would enable it to open up the professional schools which are so much needed.

There is an immediate and urgent need for the establishment of a medical school, a law school, and an engineering school, and also of a university hospital, which would become an insular central hospital with large supervisory powers over the whole medical work of the island. In all of these professional branches the young men of Porto Rico must now look outside of their own country for their education. In former years the professional men of Porto Rico were educated in Spain and in Europe. Now many of them are studying in the colleges and universities of the United States. This is a good thing in so far as it leads to a better understanding between the people of the United States and the people of Porto Rico. The cost of foreign education, however, or of an education attained at so great a distance from home, the dangers of a change of climate, and many other reasons militate to prevent some of the most promising young men from entering the professions as long as no professional school is open to them in their home country.

This problem can not be solved by the people of Porto Rico alone, but there are few fields of private philanthropy that are more promising. The machinery for a great central American university, located on American soil, in the midst of a people of the Latin race, thoroughly American in spirit and desire, and being rapidly transformed into a thorough understanding of American life and institutions, awaits the endowment which must come in a large measure from the private wealth of the citizens of the United States. Such an institution, adequately endowed, giving advanced instruction in both the English and Spanish languages, and uniting the best elements of American and Spanish-American scholarship, would exert a mighty influence for good upon the whole of Central and South America. It would draw students from all of these countries, and it would spread American institutions, interpret and enforce the Monroe doctrine, train public servants for service in Spanish-American countries, mould the professional men and leaders of society, and do more to extend the sphere of American influence legitimately and promote friendly relations with the countries south of us than 5 American battle ships, and its complete endowment would not cost more than one

battle ship. With the opening of the Isthmian Canal under the auspices of the United States, Porto Rico will be in a strategic position with respect to the route of the world's commerce. This has already been recognized in the naval and military policy of the United States. It should not be forgotten as a factor in the educational policy of the United States.

Since the passage of the university law in March, 1903, an act providing for the extension of the Morrill and Hatch acts to Porto Rico, by which the University of Porto Rico will receive from \$30,000 to \$40,000 a year from the Federal Treasury for the further development of its agricultural department, has been introduced into both Houses of the Congress of the United States. Such a resolution has passed both Houses at different sessions, but owing to the fact that other legislation was embodied in the same bill, which led to amendment, it has not yet passed both Houses in the same form and become a law. Little or no opposition has developed regarding the very just proposition to give this aid to Porto Rico, and it is hoped that the legislation that is still pending will become law at the next session of Congress. The board of trustees of the university have organized their agricultural department in conformity with the condition which Congress has imposed upon the State colleges of agriculture and mechanic arts, and since the establishment of the university the board has acquired an additional holding of land amounting to 50 acres, making in all 150 acres of good land located only 7 miles from the capital, accessible by trolley and railroads, and having on it suitable buildings for the beginning of agricultural work. The more detailed reports of the principal of the normal department, of the principal of the practice school, of the secretary and treasurer of the university board, and of the director of agriculture are submitted as an appendix to this report.

THE WORK OF AMERICAN TEACHERS.

During the year there have been employed in the public schools of Porto Rico 164 American teachers—58 men and 106 women. Of this number 145 are now teaching. These teachers are engaged in the States, usually after considerable correspondence with the department. Applications for appointment are made on the regular blanks furnished by the department which require a very detailed statement in regard to the personal characteristics, education, and experience of every applicant. These applications are accompanied by photographs, and each applicant is required to give at least three references. It is the invariable rule to send a special letter to each of these references with a request for particular information in regard to the applicant. In case there appears to be the least doubt as to the character or eligibility of any applicant the department declines to consider the application. Only teachers whose record appears to be unexceptionable are considered, and from this number all appointments are made.

Of the American teachers employed this year 57 are graduates of colleges or universities, 38 are normal school graduates, 38 are high school graduates, and 25 of the remainder have studied in high schools, normal schools, or colleges without completing the course. Ninety-six of the teachers employed have had previous experience in teaching in the United States. Seven teachers only, not having had

sufficient experience and not possessing a diploma from a college or normal school, have been appointed after examination here. These examinations are equal in difficulty to those given to applicants for graded licenses, and high standard is required of every candidate.

The greater number of American teachers are employed as teachers of English, there being at least one teacher of English connected with every graded school on the island. The work of these teachers is to give instruction in the English language to pupils and native teachers, and their work has been fairly successful. At the beginning of the present year the department issued a special manual for the use of the teachers of English, prepared by Principal Paul G. Miller, of the Insular Normal School, giving detailed advice and instruction for the work of these teachers. This manual has proved very helpful, and the results obtained in the past year have undoubtedly been very much better than in any previous year when the teachers worked without special instruction. It is proposed for the next year to put a considerable number of American teachers in charge of grades in the public schools, admitting to these grades only pupils who are able to do the entire work in English. As an experiment this has been tried on a small scale in San Juan, Ponce, and Mayaguez, and has proven very successful.

Thirty-five of the American teachers have been engaged in teaching high school subjects and in teaching grades in English during the past year, 17 have been engaged in industrial school work, and 6 as special teachers of music and drawing. The number of teachers employed in industrial and high school work probably can not be largely increased in the immediate future, nor can there be a large number of special teachers added to our list. It is very desirable, however, that special work in music and drawing be extended to some degree.

The largest number of American teachers have come from New York, 31 being from that State; 25 are from Pennsylvania; 22 from Massachusetts; 8 from Indiana, and the same number from Ohio; 6 from Michigan; 5 from Wisconsin and Nebraska; 4 from New Hampshire, Connecticut, Kansas, and Maine; 3 from Missouri, New Jersey, and Illinois; 2 from Rhode Island, Florida, and Mississippi, while Maryland, Kentucky, Virginia, West Virginia, Alabama, Vermont, Delaware, Iowa, and California furnish 1 each. A few of the teachers are natives of Porto Rico or of some other Spanish-speaking country, but are of American parentage, it having been the rule of the Department to employ only teachers whose native language is English.

PORTO RICAN STUDENTS IN THE UNITED STATES.

Under sections 68 to 77 of the "compiled school law" a number of students are maintained in various schools in the United States at the expense of the government of Porto Rico. These sections comprise two separate acts, which are known as "house bill 35" and "council bill 12." Under house bill 35, 25 young men are sent to the United States for literary and professional training in such institutions as may be determined by a commission consisting of the president of the executive council, the speaker of the house of representatives, and the commissioner of education. The young men who are now in the States in accordance with this act are named in the list below, to-

gether with their residence in Porto Rico, the schools in which they are located, and the number of years each has been in the States.

Porto Rican, residence and name.	School.	Years in United States.
San Juan:		
José Padín	Haverford College	3
Manuel Saldaña	Lehigh University	3
Lencio Mosquera	do	3
Jesús M. González	Rutgers College	3
Francisco Ginorio	Cornell University	3
Arecibo: Octavio J. Miranda	Jefferson Medical	3
Aguadilla: Leopoldo Mercader	Lehigh University	3
Hatillo: Manuel Rivera	Wesleyan University	3
Quebradillas: Alejandro Ruiz Soler	Medical school of University of Maryland	3
San Sebastian: Cecilio Torres Reyes	State College, Pennsylvania	3
San Germán:		
Hermínio Irizarry	Massachusetts Institute of Technology	3
Domingo Panaini	State Normal, Westchester, Pa	1
Mayaguez:		
Arturo Reichard	Law school, University of Michigan	3
Rogelio Capestany	Deichmann School, Baltimore, Md	3
Ponce:		
Guillermo Rivera, jr.	Worcester Academy	3
F. Manuel Toro	University of City of New York	3
Guayama:		
Alejandro Guilloid	Medical College, Albany	3
José González	Jefferson Medical College, Philadelphia	3
Salinas: Louis Llabrés	Northwestern University, Evanston, Ill	1
Naguabo: Francisco M. Dávila	Cushing Academy, Ashburnham, Mass.	3
Rio Piedras: Juan Miranda	Juniata College, Huntingdon, Pa	1
Añasco: Francisco L. Herrera	State Normal, Westchester, Pa	1

The above list shows three vacancies, which, however, have been filled by recent act of the commission. In accordance with a special act of the last legislature, the three sons of the late Eugenio Maria Hostos were to be given preference in making appointments, and two of these sons, Bayoan and Adolfo, being otherwise qualified, have been appointed to existing vacancies and will be sent to Lehigh University or Bethlehem Preparatory School at the beginning of the next school year. The third vacancy has been filled by the appointment of Carlos Julia, who will be sent to Dickinson College. These three appointments are in place of Fernando Valera, of Humacao, and Pedro Descartes, of Ponce, resigned, and Rafael Morera, of Humacao, who died in January last, and are the only changes in the list of students during the past year.

Reports from the various institutions in which these young men are studying indicate that the work they are doing is, as a rule, eminently satisfactory. Many of the students have taken honors, and all of them are proving worthy recipients of public aid.

The commission has determined to fill all future vacancies by the appointment of young men whose record in the public schools of Porto Rico has been most satisfactory. In accordance with an amendment passed by the last legislature, only graduates of the eighth grade of the public schools are hereafter eligible, and it is intended to select those graduates whose standing is highest in the district to which a scholarship should be awarded.

Under council bill 12, for the technical education of Porto Rican young men and women, 20 young men and women are awarded scholarships with the understanding that they are to be sent to a technical or industrial school. In accordance with this act there are now

maintained in the States 17 students at the institutions named in the following list:

Jasper, N. Y.:

Antonio Pérez.

Tongaloo University, Tongaloo, Miss.:

Carlos Schmidt.

Jesús Negrón.

Felipe Orta.

Tuskegee Normal and Industrial Institute, Tuskegee, Ala.:

Lola Tizol.

Josefina Trilla.

Berenice Rodriguez.

Felix Reina.

María Rodriguez Avilés.

María Moreno.

Virginia Aponte.

Eugenio Lecompte.

Luis Mendez.

Francisco Barrios.

Antonio Arroyo.

Luisa González Nieves.

Felipe Sagardía.

During the year 3 students have been removed, and these vacancies have not yet been filled.

TEACHERS' INSTITUTES.

The inauguration of the regular teachers' institute was a new departure during the past year. Prior to that time educational conferences had been held at different times both by the district superintendents and under the supervision of the department. This year it was felt that something a little more thorough and systematic could be attempted with probable success. On March 7 I sent the following letter announcing our plans for a series of institute meetings:

The Superintendents.

GENTLEMEN: I inclose herewith a programme for institute meetings for teachers in the various school districts of the island.

Two days will be set apart for each district as institute days. If one or both of these days fall on a school day you will have the schools closed so that all teachers may be able to be present at your headquarters on the two days set apart for your district. Please notify your teachers that they are all expected to attend, and if one or both institute days fall on school days you are authorized to require such attendance or to report the teacher for absence from school, with the consequent loss of salary.

An institute director will be assigned to your district for the two days, and you will be notified soon which one of the following is assigned to your district: Messrs. P. G. Miller and Felipe Janer, of the Insular Normal School; Miss Susan D. Huntington, principal of the practice school, and Messrs. Martinez, Hernandez, and Sawyer. This will probably constitute the corps of institute directors, one of whom will be assigned to your district. As soon as you receive notice of such assignment you will please confer with the institute director and arrange a programme of two morning sessions and two afternoon sessions and one evening session, with appropriate papers and discussions in which your teachers may participate, including such addresses as you yourself and the institute director may desire to give. The evening session, as per the inclosed schedule, must be reserved for a meeting of a general character, to which the general public as well as the teachers in attendance at the institute may be invited. I will arrange for one, and in some cases possibly for two, brief addresses, and will advise you of the topics later. The president of the school board or the alcalde of the town, or some other citizen interested in educational matters, should be invited to address the meeting, so that the evening session in each district on the date specified in the inclosed programme will consist of not less than two and not more than three brief addresses, one of which shall be given by some one representing the local educational interests and all of which

shall be of a character that will interest the general public and stimulate the cause of public education.

I am not sure that we shall have any visiting delegates from the States this year, but I am glad to announce that Fernandez Juncos, of San Juan, the distinguished author of several of our text-books and the well-known writer on educational subjects, has consented to accompany me on this trip and to make a number of addresses.

Please ask your school boards to cooperate with you in making suitable arrangements for these meetings and urge upon your teachers the importance of participating in them.

Only teachers and adults whom you think will profit by the discussion should be admitted to the day sessions.

Full authority for the arrangements of all the details, provided that no expense is incurred for which the department is liable, is hereby placed jointly in the hands of the district superintendents and the institute director assigned to each district. The institute director will be asked to place himself at once in communication with you for the discussion of further plans.

The programme for the meetings, with the announcement of the directors in charge of each institute and special speakers, was as follows:

Dates of institutes.

COMMISSIONER'S PARTY.

[Commissioner's party will deliver addresses only in the evening unless otherwise mentioned. Under (a) and (b) party divides, speaking in the towns on the dates as noted by accompanying letter.]

	Date of arrival.	Institutes.
San Juan	Mar. 17	Mar. 17, 18
Fajardo	Mar. 18 (a)	Do.
Humacao	Mar. 18 (b)	Do.
Caguas	Mar. 19 (b)	Mar. 18, 19
	In San Juan Sunday, Mar. 20.	
Aibonito (afternoon session)	Mar. 21 (a)	Mar. 21, 22
Coamo (evening session)	do	Do.
Guayama	Mar. 21 (b)	Do.
Ponce	Mar. 22 (a and b join)	Do.
Yauco	Mar. 23 (a)	Mar. 22, 23
San German	Mar. 23 (b)	Do.
Mayaguez	Mar. 24 (a and b join)	Mar. 24, 25
Aguadilla	Mar. 25 (a)	Mar. 25, 26
Camuy (afternoon session)	Mar. 25 (b)	Do.
Arecibo (evening session)	do	Do.
Utua do	Mar. 26 (a)	Do.
Manati	Mar. 26 (b)	Do.
	In San Juan Sunday, Mar. 27.	
Toa Alta (afternoon session)	Mar. 28	Mar. 28, 29
Bayamon (evening session)	do	Do.

INSTITUTE DIRECTORS.

Director.	Town.	Date.
P. G. Miller	San Juan	Mar. 17, 18
	San German	Mar. 22, 23
	Mayaguez	Mar. 24, 25
Felipe Janer	Coamo	Mar. 21, 22
	Camuy	Mar. 25, 26
	Toa Alta	Mar. 25, 29
Susan D. Huntington	Humacao	Mar. 17, 18
	Ponce	Mar. 21, 22
	Utua do	Mar. 25, 26
Alberto F. Martinez	Fajardo	Mar. 17, 18
	Guayama	Mar. 21, 22
	Manati	Mar. 25, 26
Enrique C. Hernandez	Caguas	Mar. 18, 19
	Yauco	Mar. 22, 23
	Aguadilla	Mar. 25, 26
L. R. Sawyer	Aibonito	Mar. 21, 22
	Arecibo	Mar. 25, 26
	Bayamon	Mar. 28, 29

Some one representing the department visited every district in the island while the teachers' institutes were in session. The commissioner's party consisted of the distinguished Spanish-American educator and author, Don Manuel Fernandez Juncos, Mr. C. H. Ames, of Boston, the assistant commissioner, and the commissioner. This party visited all of the district headquarters where conferences were being held, taking part in at least one meeting and sometimes more. Results of this inspection were entirely satisfactory, and the spirit shown by the teachers most encouraging. The superintendents were almost unanimous in their words of praise for the efforts which most of the teachers in their respective districts were making in the direction of self-improvement and higher and better professional standards.

CONSTRUCTION OF NEW SCHOOL BUILDINGS.

The work of school extension and construction of buildings has gone on somewhat more slowly during the past year, not because the need was any the less or the opportunities of arousing local interest in anywise diminished, but because the amount of money available from the trust fund was necessarily less. The time has come when the trust fund is practically exhausted, and the insular legislature must make provision for school construction as an item in the annual appropriation for the department of education. The people take too much pride in these new school buildings springing up in the towns and in the country to permit this work to stop. A more or less complete review of the work of construction, as carried on by this department from the beginning when the trust fund was first made available for school construction, was given in the report which I have already submitted to the governor under date of June 1, which reads as follows:^a

SIR: I have the honor to transmit herewith a special report, setting forth the statistics of expenditures in connection with the construction of school buildings or school extension in Porto Rico from the time this work was begun from funds transferred by you from the trust fund January 2, 1901, to December 31, 1903.

During these three years there was made available for school construction the total sum of \$492,739.49, of which \$485,076.50 came from the trust fund; \$2,000 was transferred from an insurance fund, and \$5,662.99 represents repayments on the part of municipalities or school boards that have consented to share the cost of construction of schoolhouses in their respective districts and have agreed to make monthly repayments on account until they have paid for half of the cost of buildings constructed in accordance with such agreements.

The disbursements of this fund have been made under three general heads:

First, "General fund account," into which all of the original allotments were put, and into which also all repayments are now made, and from which 24 one-room rural schoolhouses, at an average cost of about \$1,700; 3 two-room rural schoolhouses, at an average cost of about \$3,000 each; 13 four-room brick and stone schoolhouses, at an average cost of about \$9,000, and two larger buildings, one at Mayaguez and one at Fajardo, also of brick and stone, the former costing over \$9,000 and the latter \$16,000. This makes in all 42 schoolhouses distributed throughout the island, the total cost of which was \$188,518.83. There was also expended from this fund: For salaries in architect's division of this office, covering the making of plans and the supervision of construction of all the aforesaid buildings, as well as of all other buildings constructed during the same period, the sum of \$20,728.87; for traveling expenses of office force while engaged in the construction of these buildings, \$3,730.31; for fire insurance on frame buildings, \$1,501.81; for the examination of titles, \$285, and for contin-

^a The tables to this special report are given in the appendix with the report of the chief of division of school extension (see p. —).

gent expenses, \$4,283.61, making a grand total of \$219,048.83, and leaving a balance in the "general fund," on January 1, 1904, of \$6,614.16.

Second. The "normal school group," for which special allotment was made, has comprised the expenditure of \$58,000, with which a large, commodious normal school building, to which a special road was built, and around which grounds a fine fence was constructed, was erected at a cost of \$35,000, including \$3,000 for the land. A principal's house, at a cost of \$4,000; a six-room brick and stone practice school building, at a cost of \$17,000, and subsequently \$2,000 was spent on roadways and approaches, making, in all, \$58,000.

Third. In May, 1903, I made a special request that in future specific allotments should be made for all the larger and more expensive buildings, and to the third division of expenditure, therefore, that known as "Specific allotments for schoolhouses," there has been transferred the total sum of \$209,076.72, of which \$78,859.92 had been expended on January 1, 1904, in the construction of one large brick and stone industrial school building at Ponce, at a cost of \$22,000; 6 four or six room brick and stone buildings, at an average cost of \$9,000, and part payments on two additional buildings which have been completed since January 1, leaving a balance of \$130,216.58, which on January 1, 1904, was held for payment on buildings, contracts for which had either been let or were about to be let upon the completion of satisfactory plans. This made, in all, 52 buildings constructed in the three years from January 1, 1901, to January 1, 1904, at a total cost of less than \$355,000.

The amount of \$130,000, allotted but unexpended on January 1, 1904, was reserved for 1 six-room brick building in Ponce, contracted for at \$9,650, and now nearing completion, and 1 high school building in Ponce, for which about \$15,000 is now available, but for which \$20,000 will be needed; 1 four-room brick and stone building at Guanica, now completed, at a cost of \$8,506.67; 1 four-room brick and stone building at Añasco, now completed, at a cost of \$7,349, and \$3,757 now expended on the remodeling of a government house at Arecibo, which is being used as an industrial school. This leaves, of the total amount allotted, the following allotments: For Carolina schoolhouse, \$12,000; Bayamon, \$9,000; Yabucoa, \$13,000; Juana Diaz, \$12,000; Patillas, \$3,000; Las Marias, \$10,000; Rio Piedras, \$13,000; Maricao, \$10,000; Lajas, \$7,500.

The Rio Piedras building is now under construction, and contract has been let for \$10,630. Work on plans, and especially in negotiations for suitable land with good title, is being pushed on all of these allotments, and most of these buildings will be completed during the coming summer.

At a recent meeting of the heads of departments called by you for this purpose, the question of further school extension from the trust funds was discussed and the general conclusion reached seemed to be that this work should go on steadily on a moderate scale, encouraging the local communities to do all they could, and that during the current year there might be available from the trust fund an additional sum not to exceed \$50,000. I need scarcely say that the department has on file numerous requests, representing nearly every municipality on the island, for additional school buildings. In some cases the local committees are making every effort to take part in this work themselves, either by repaying part of the cost of the construction of a building or by offering to construct other buildings at the same time the work of construction by the department goes on. I would respectfully request that the following allotments from the trust fund be therefore made available at once, so that as much work as possible of this character can be undertaken during the coming summer months:

First. While the repayments by municipalities are made into the "General fund," and are now available for further use without allotment, I should prefer to have this kept as a separate item in the "General fund," not to be expended without consultation and concurrence with the governor and heads of departments, and I would therefore request an allotment to be made to be entitled "General fund, salaries," \$6,000; "General fund, travel," \$1,500; "General fund, contingent," \$1,914.21; "General fund," \$1,585.79. These allotments will leave the repayment item in the general fund on June 1, 1904, amounting to \$11,390.78, and will furnish sufficient funds for the payment of office salaries, division of school extension, salaries of inspectors of buildings, necessary travel in the inspection and construction of buildings, and contingent expenses for the year 1904, and possibly sufficient to carry this on far enough in the year 1905 to complete the total amount of work contemplated. If not, there will be available from repayments sufficient funds to complete the work outlined, so far as administrative cost is concerned.

Second. I would respectfully request an allotment of \$10,000 for rural schools. We have now land properly deeded to the people of Porto Rico and approved by the department for four rural schools at Coamo, Santa Isabel, Aguirre, and Naranjito, which can be constructed under very favorable conditions, and we have propositions under advisement with respect to extensive operations on buildings of small cost in the districts of Caguas and Rio Piedras; so that, with this fund of \$10,000, we can probably have ready for occupancy by the beginning of next school year from eight to ten new rural school buildings.

Third. I would respectfully request an allotment for graded school buildings, as follows: Santa Isabel, four-room brick and stone building, \$10,000; Isabella, four-room frame building, \$4,000. For these two buildings we have already ordinances passed by the school boards and the municipalities giving suitable land and agreeing to pay half the cost of construction in installments running for a series of years; and also request that for Maunabo an allotment of \$3,000 be made for a two or three room frame building, and that for Comerio an allotment of \$4,500 be made for a four-room frame building, both of these buildings to be constructed upon the best terms that the department can make with the respective school boards or municipalities.

Fourth. I would also respectfully request the following allotments to complete payments on buildings which have exceeded cost of the original allotment: San Sebastian, four-room brick and stone building, balance required, \$367.49; Adjuntas, four-room brick and stone building, balance required, \$157.01.

Fifth. I would also respectfully request that an addition be made to the allotment outstanding for Ponce schoolhouses in the amount of \$4,800, in order that the balance available for the high school building may at least be \$20,000. It seems to me advisable that any building constructed in Ponce should be a first-class structure, and inasmuch as this building is to go on the same grounds and directly opposite the Roosevelt Industrial School, which was constructed at a cost of \$22,000, it must necessarily harmonize in general scale and excellence of construction with that building. It is urgently needed, and the city of Ponce has made great sacrifices in its agreement to repay to the department a total sum of \$14,000 in a series of years, in consideration of which there was made over a year ago an agreement to construct the industrial school and the Cantera graded school, the former having been completed and the latter now nearing completion, and the high and graded school, for which plans have been drawn, but for which contract has not yet been awarded.

This makes a total of allotments now requested amounting to \$47,824.50, which is the sum I would respectfully request you to transfer from the trust fund to be made available in accordance with the above conditions. This will leave in my fund, under the heading of "General fund," no subheading, all of the repayments thus far made by municipalities to this department, amounting, on June 1, 1904, to \$11,390.78, and I would request that at the time any allotment is made from the trust fund you also authorize the use of this amount from "Repayments to school extension, general fund" to "School extension, general fund," for graded school to be constructed in the municipality where the department is able to make the best terms. The repayments after June 1 will then be allowed to accumulate in the general fund until there is a subsequent request for their reallocation.

Respectfully,

SAMUEL McCUNE LINDSAY,
Commissioner.

The GOVERNOR OF PORTO RICO, *San Juan, P. R.*

As in former years the department has been the recipient of many kindnesses and considerable outside support from those interested in the Porto Rican educational work. It is impossible to mention by name all of the persons who have contributed in one way or another to the success of the last year's work. I desire to call attention, however, to the gift of Mr. Hines, a visitor to the island, of a prize banner to the school in San Juan making the most progress in English; to the gift of Captain Curry of a memorial to his father, Dr. J. L. M. Curry, given to the school which bears his name; to the Grand Army posts of Philadelphia for the equipment of a band for the industrial school at Mayaguez, and to the children of the public schools of Philadelphia for the gift of clothing which was received over a year ago,

but so late in the previous school year that it was unadvisable to attempt its distribution at that time. This clothing made in the sewing classes of several of the Philadelphia schools was sent to the different superintendents in Porto Rico at the beginning of this school year with the request that it be distributed to the most worthy children in their districts, those to be specially selected who were unable to attend school for the lack of suitable clothing.

The superintendents were requested to report, as soon as the distribution had been made, the names of the children receiving the clothing and any other facts which might be pertinent. These reports have come in slowly, as some of the superintendents have preferred to distribute the clothing in person, visiting the different families and awarding the articles of clothing to the most needy and worthy children. The final reports have been received only within the past few weeks. Accompanying this report is a list of the children who have been thus benefited, and also a few letters written by some of these children to the school children of Philadelphia. The superintendents report that the recipients have been greatly delighted at receiving the clothing and are sincerely grateful to the givers. In one instance, Guayama, the superintendent, after distributing a large part of the clothing, put a dress in each of 15 rural schools with the understanding that it was to be given at the end of the term to the child having the best attendance. He reports this to have been a very satisfactory experiment. In another case, Coamo, the superintendent reports that a number of the dresses were too small to be worn by public school children, and he accordingly turned these over to an orphan asylum where there were many small girls. The managers of this asylum were very grateful and were able to put the clothing given to them to good use. One other superintendent, Mr. Conant, of Bayamon, reports that he has on hand a few dresses which he is distributing personally, as from time to time he finds specially worthy children.

As a result of this distribution of clothing, it would appear that at least 278 children have been able to attend school who otherwise would not have had this privilege.

The island of Porto Rico differs from the remaining islands of the West Indies, and its problems are quite different from those in the other colonial and territorial governments of the United States, in that we find there a compact and dense population speaking one language, predominably white in its racial complexion, and possessing in a large measure the traditions and many of the advantages of our best western civilization. Of course, the educated class of which this is true is relatively small in number, but it can easily be brought to dominate the social life of the entire population as soon as it realizes, as under the influence of American institutions it is beginning to do, its obligations of leadership with respect to the great mass of simple, good-hearted, ignorant folk who furnish the labor on the plantations and inhabit the towns. The predominant industry of the island is to be found in its agricultural pursuits, and to improvement in agriculture and to the awakening to a larger and better life on the part of the peon or agricultural laborer must we look for the future prosperity of the island as a whole.

It is no forlorn hope, but a task full of promise, that the American Government has set itself, and no American need be ashamed of the

record of the past six years nor of the fact that the policies of the government of Porto Rico have been framed in a truly educational spirit, whether the government has been engaged in the building of schoolhouses, in the extension of the public school system, in the building of roads, and other public improvements, or in the organization and execution of a system of taxation, the establishment of a judicial system corresponding to the best traditions of our American courts, or in the working out of the even more delicate problems of local government for the towns and municipalities. So long as education in its broadest sense is recognized by the people themselves, both here at home and in our distant territories, as the keynote of the American colonial system we need not fear the results of temporary centralization of the powers of government in a country like Porto Rico, where so much of the work of the past must be undone before the people are in line for that which they so earnestly desire, namely, a better understanding of the privilege of American institutions and a larger participation in their beneficial results.

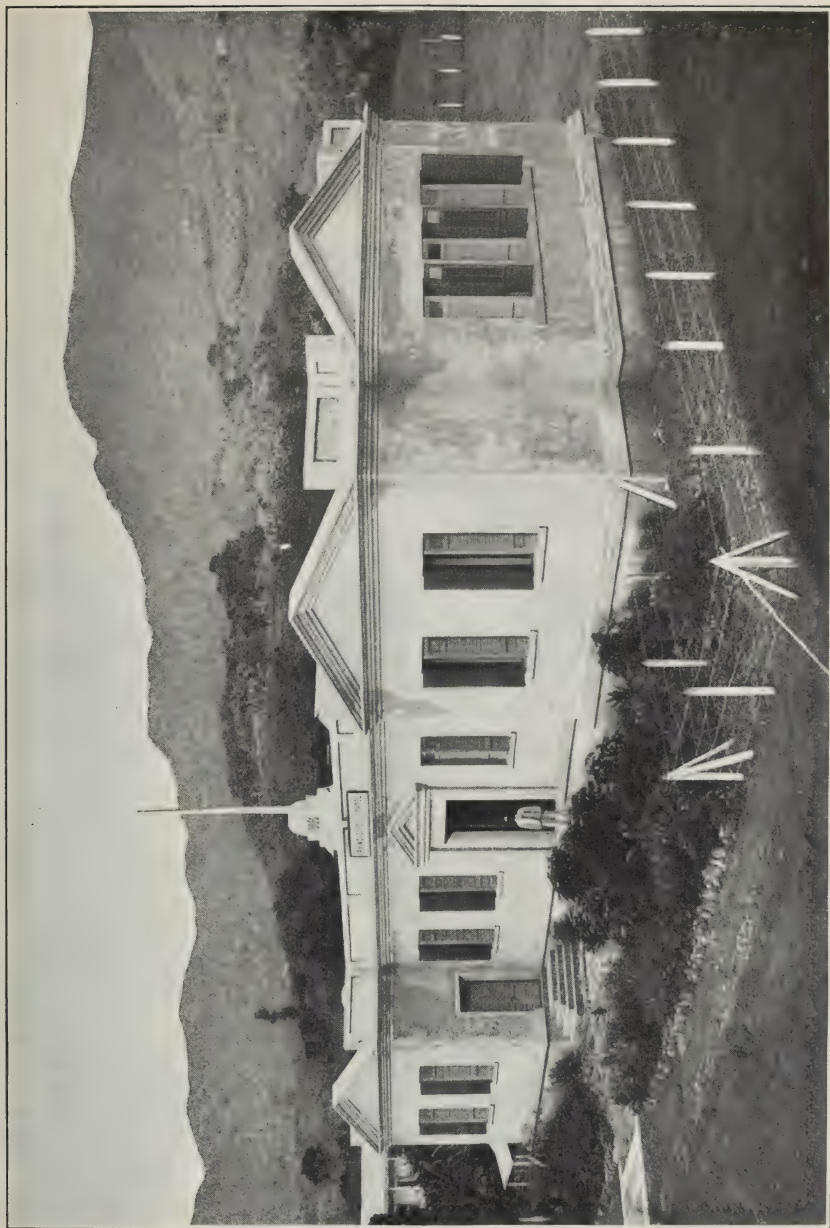
The 500 so-called public schools, unorganized, with no equipment whatsoever, with wretchedly paid teachers who had few or no advantages in the line of professional training and who held their positions by reason of the worst forms of political subservience and received their salaries at irregular intervals, which we found in the island at the beginning of the American occupation, are scarcely worthy of the name public school at all. Certainly judged by their results, which gave us a population 85 per cent of which was illiterate, they were a dismal failure. The military government wrestled with this situation and did what it could with the assets of the old régime. It made the position of the teacher a relatively well-paid, stable, and respectable one in the community. It began the better equipment on the material side of the schoolroom, and it inaugurated a course of study more in harmony with our American school system.

With this start the civil government at the outset was able to place the school system on a sound American pedagogical basis. It began actively the construction of new and suitable school buildings from a fund of \$2,000,000 contributed by the American Government for public improvements, and over one-quarter of which has been spent in the construction of schoolhouses. By the end of the first school year we had nearly 800 schools in operation, the cost of maintenance of which was borne entirely by the insular government from the funds of the people of Porto Rico. This involved the annual outlay at that time of \$500,000. That was increased to \$600,000 the next year, and gave us nearly 1,000 schools in operation, while at the close of the last school year and the beginning of the year just opened we have approximately 1,200 schools in operation, involving an annual outlay of \$700,000. This is the maximum amount that the finances of the insular government will permit.

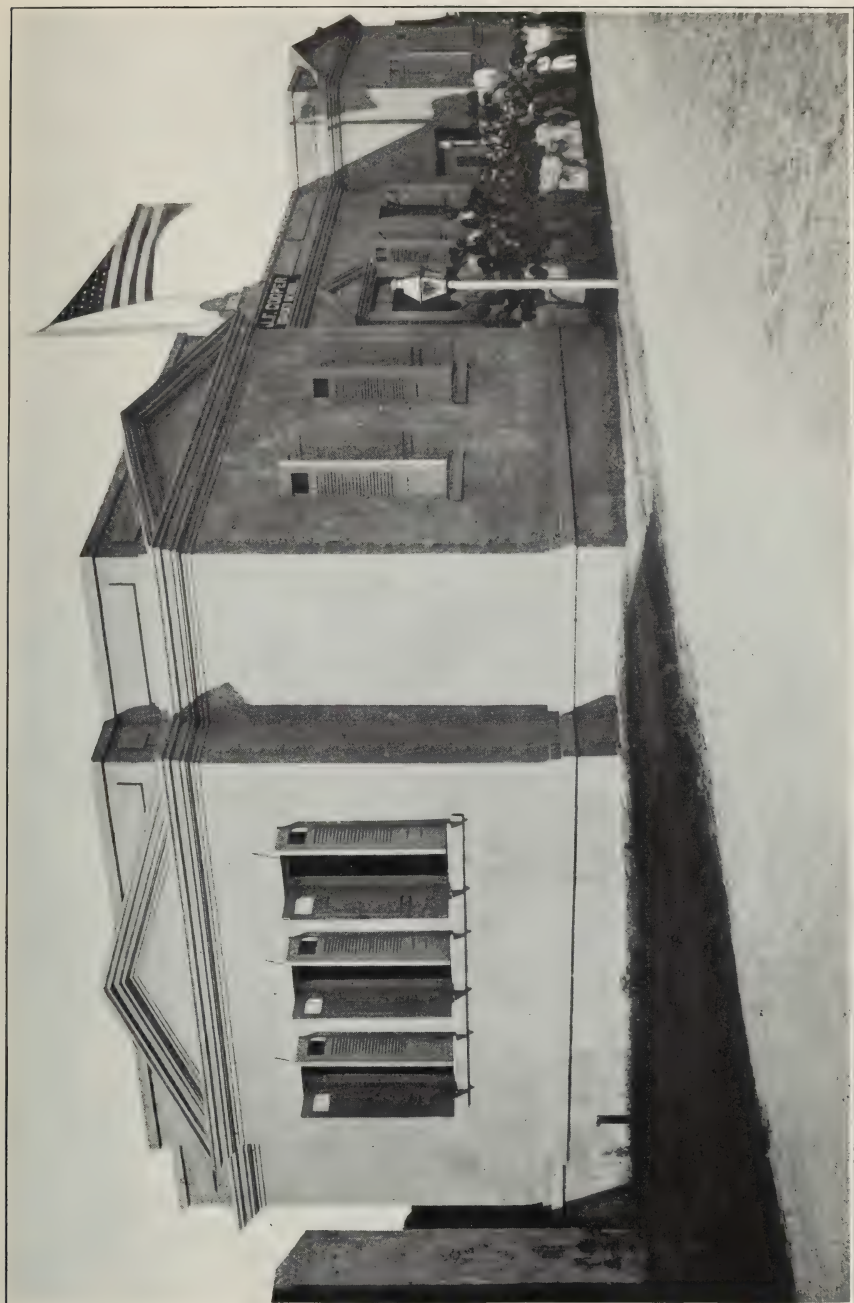
Increase of taxation is unadvisable. The receipts from present taxes will increase somewhat with the growth in value of taxable property and will permit of some slight increase in the school fund, which now represents, however, a most creditable effort on the part of the insular and municipal governments, which set aside for school purposes to-day over 25 per cent of every dollar of taxation collected in the entire island. Yet the 1,200 schools which the school funds will maintain furnish accommodations for only 70,000 children, or







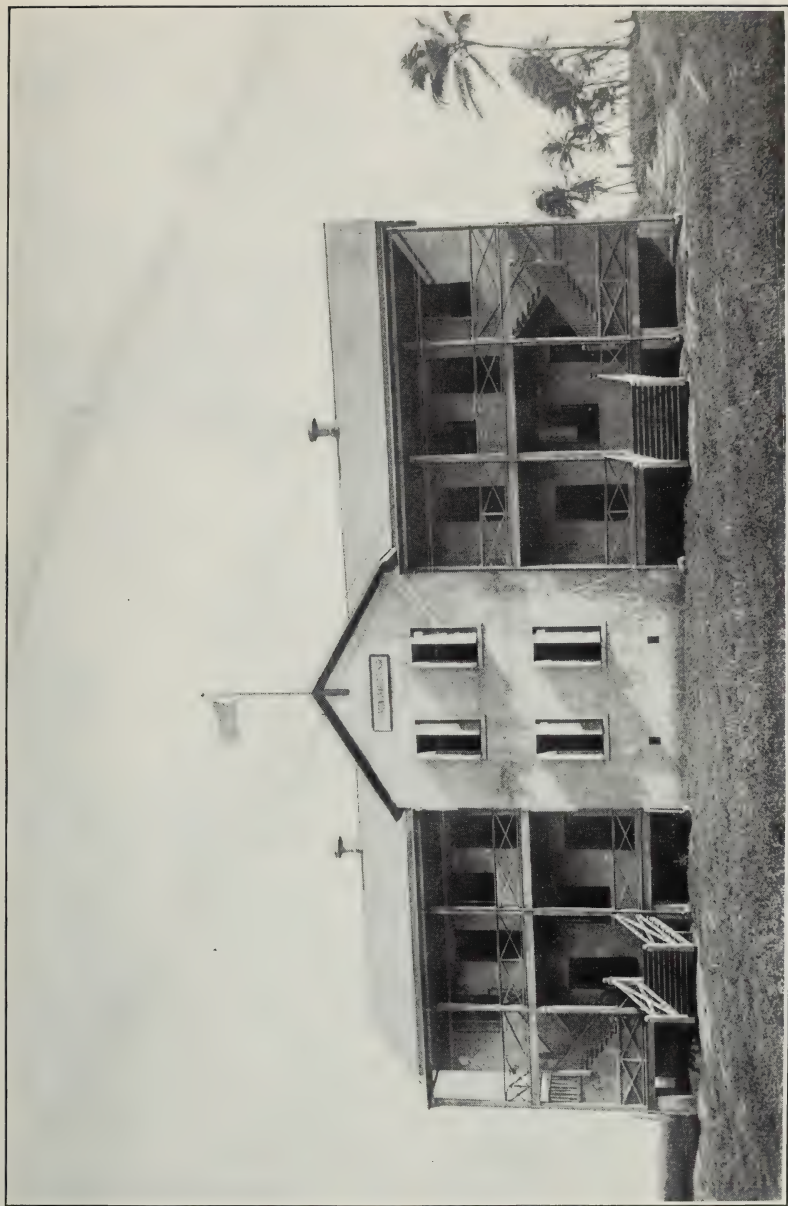
A NEW TYPE OF SCHOOL BUILDING, CONSTRUCTED BY THE DEPARTMENT OF EDUCATION, GRADED SCHOOL AT ADJUNTAS.



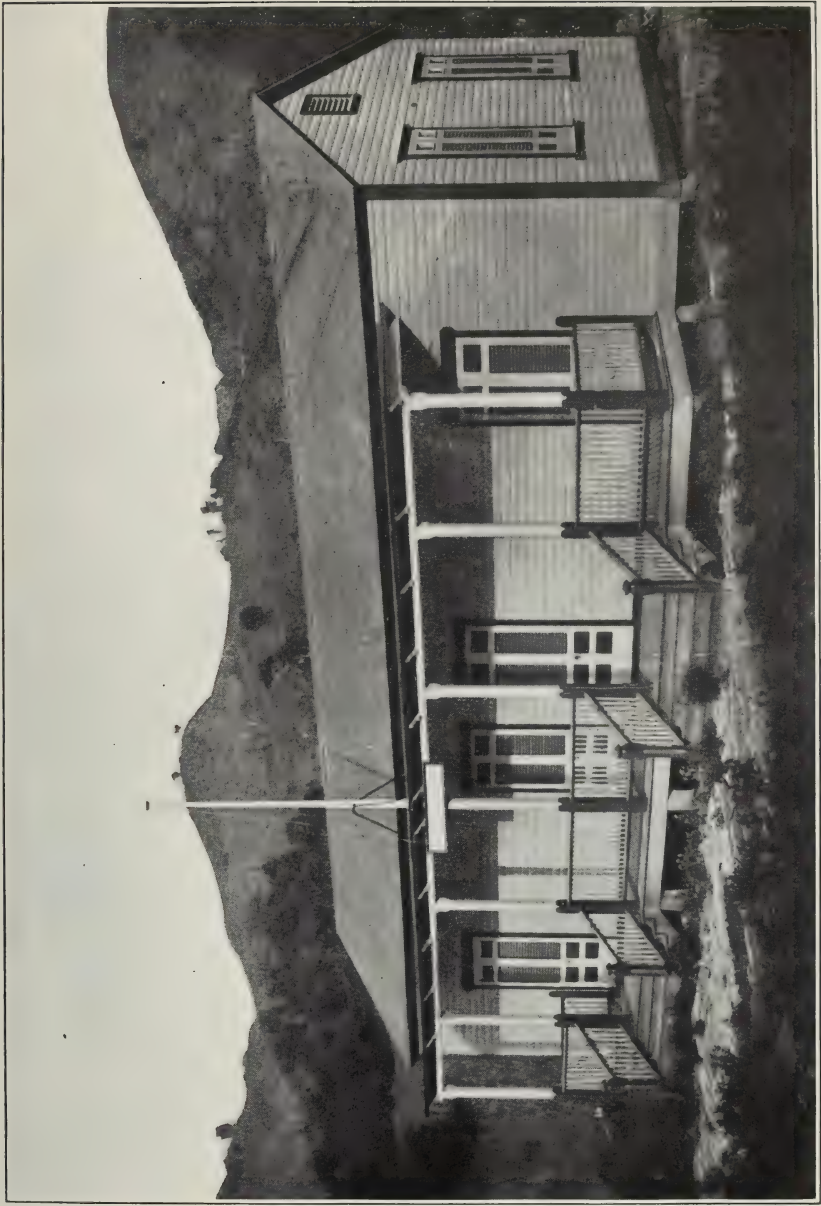
J. FENIMORE COOPER GRADED SCHOOL, SABANA GRANDE.



GARFIELD GRADED SCHOOL, GUANICA.



AN OLDER TYPE OF SCHOOL BUILDING, CONSTRUCTED BY THE DEPARTMENT OF EDUCATION. JEFFERSON GRADED SCHOOL, ARECIBO.



A 2-ROOM FRAME RURAL SCHOOL BUILDING, CONSTRUCTED BY THE DEPARTMENT OF EDUCATION.



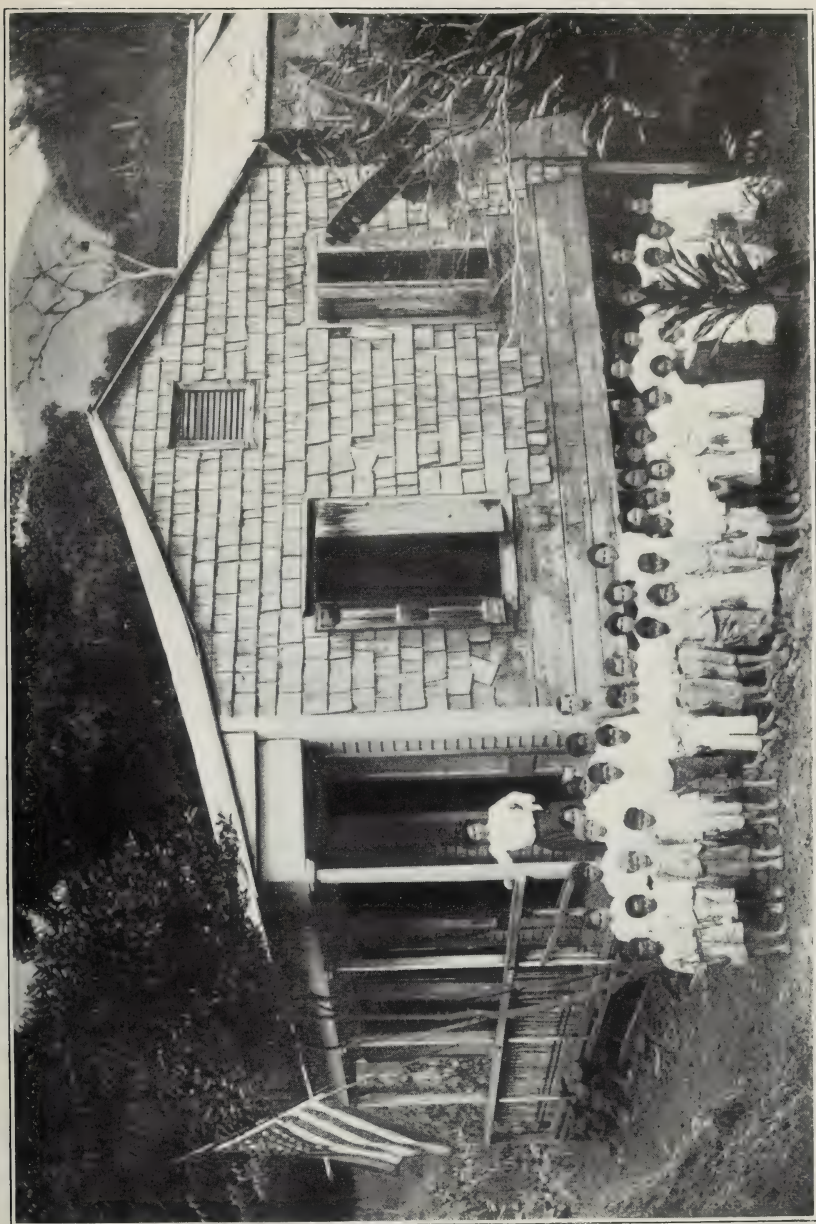
McKINLEY AGRICULTURAL RURAL SCHOOL, PONCE DISTRICT. BUILDING CONSTRUCTED BY THE DEPARTMENT OF EDUCATION.



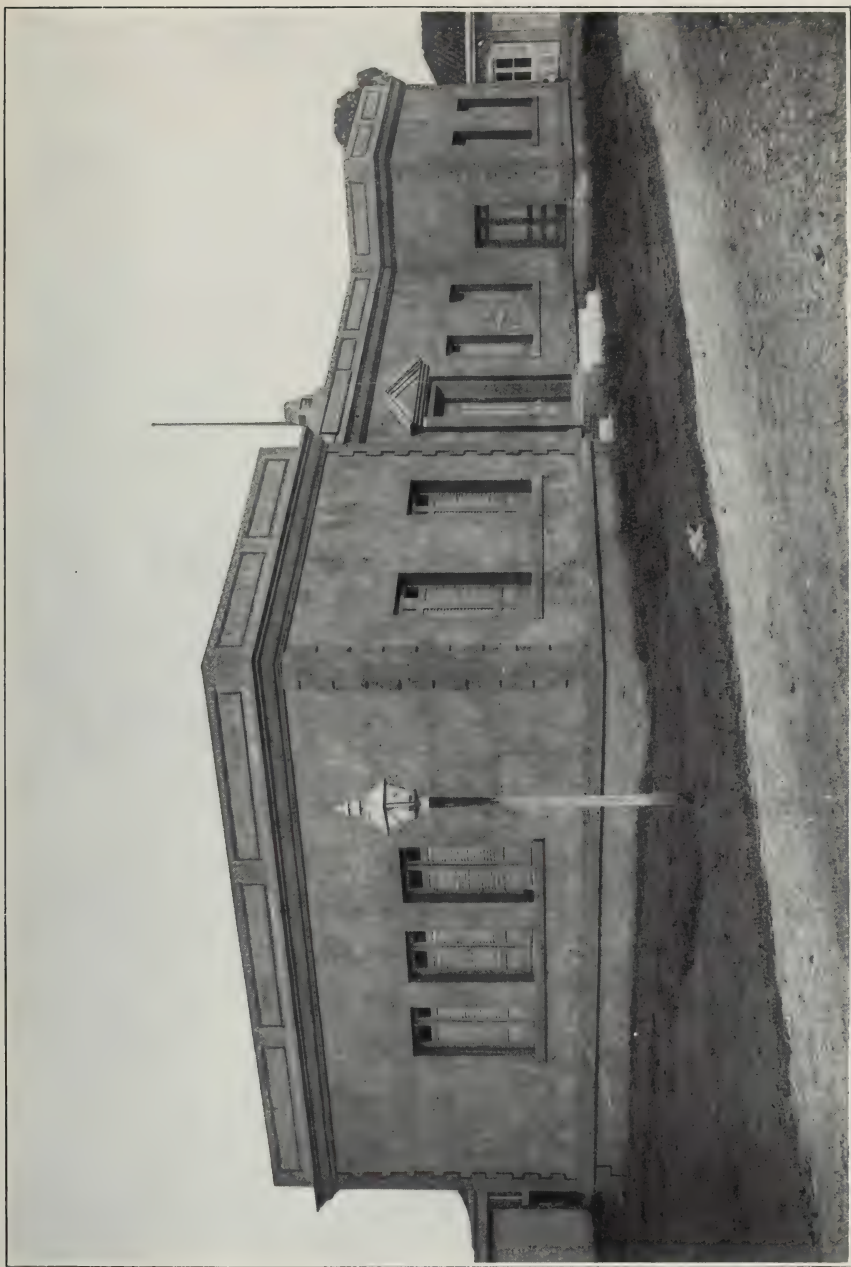
NORMAL DEPARTMENT, UNIVERSITY OF PORTO RICO.



A RURAL SCHOOL, PONCE DISTRICT.



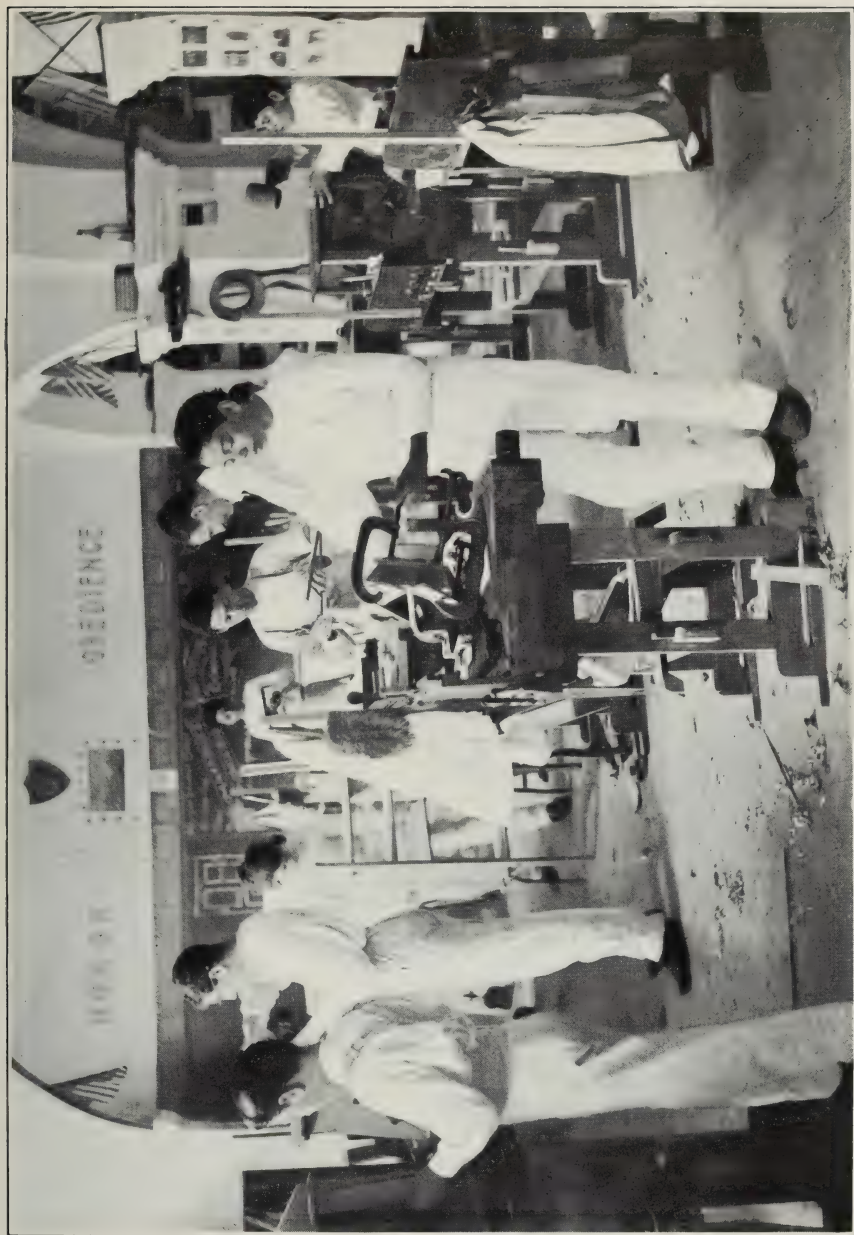
A RURAL SCHOOL. RENTED BUILDING.



HOSTOS GRADED SCHOOL, AÑASCO.



ROOSEVELT INDUSTRIAL SCHOOL, PONCE.



CLASS AT WORK IN MAYAGUEZ INDUSTRIAL SCHOOL.



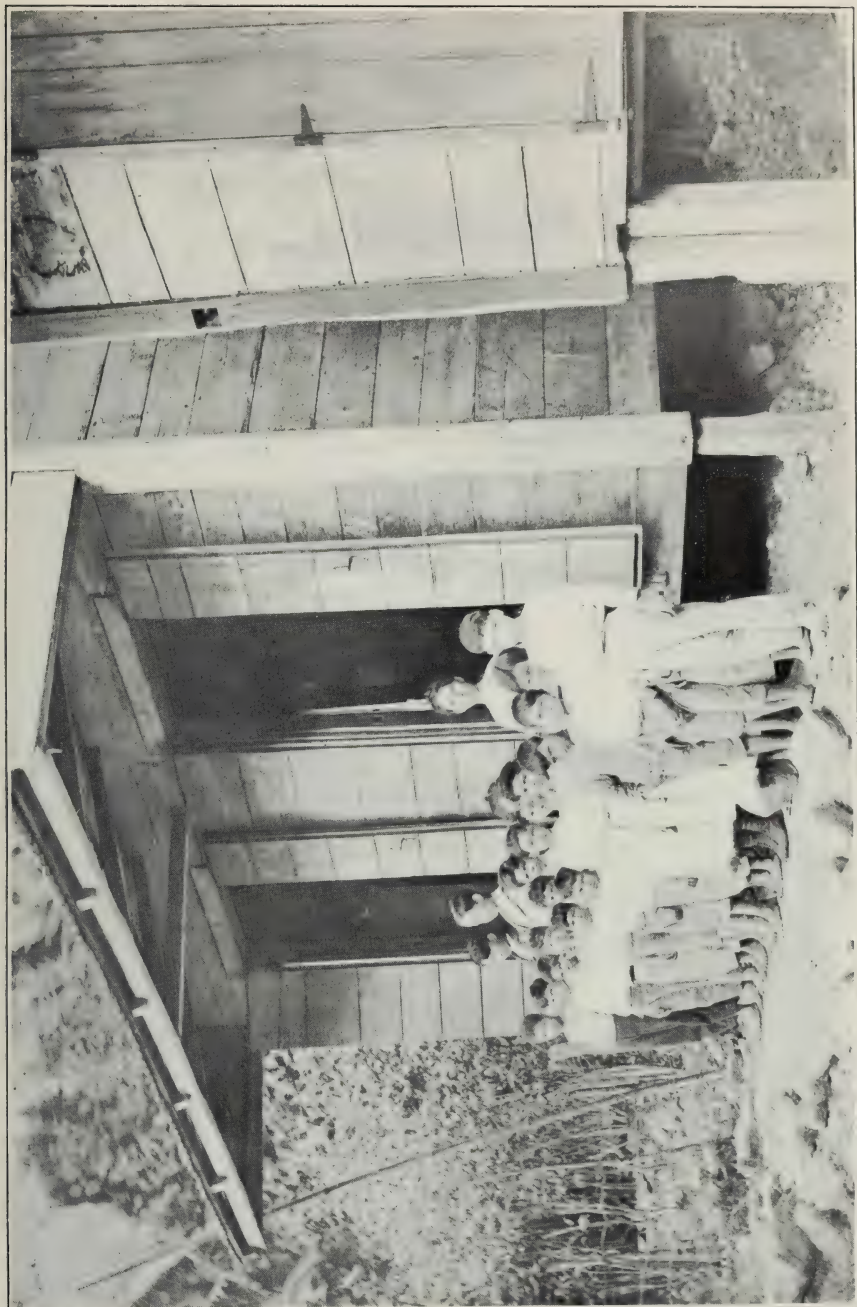
PUBLIC SCHOOL FOR PRISONERS IN JAIL AT SAN JUAN.



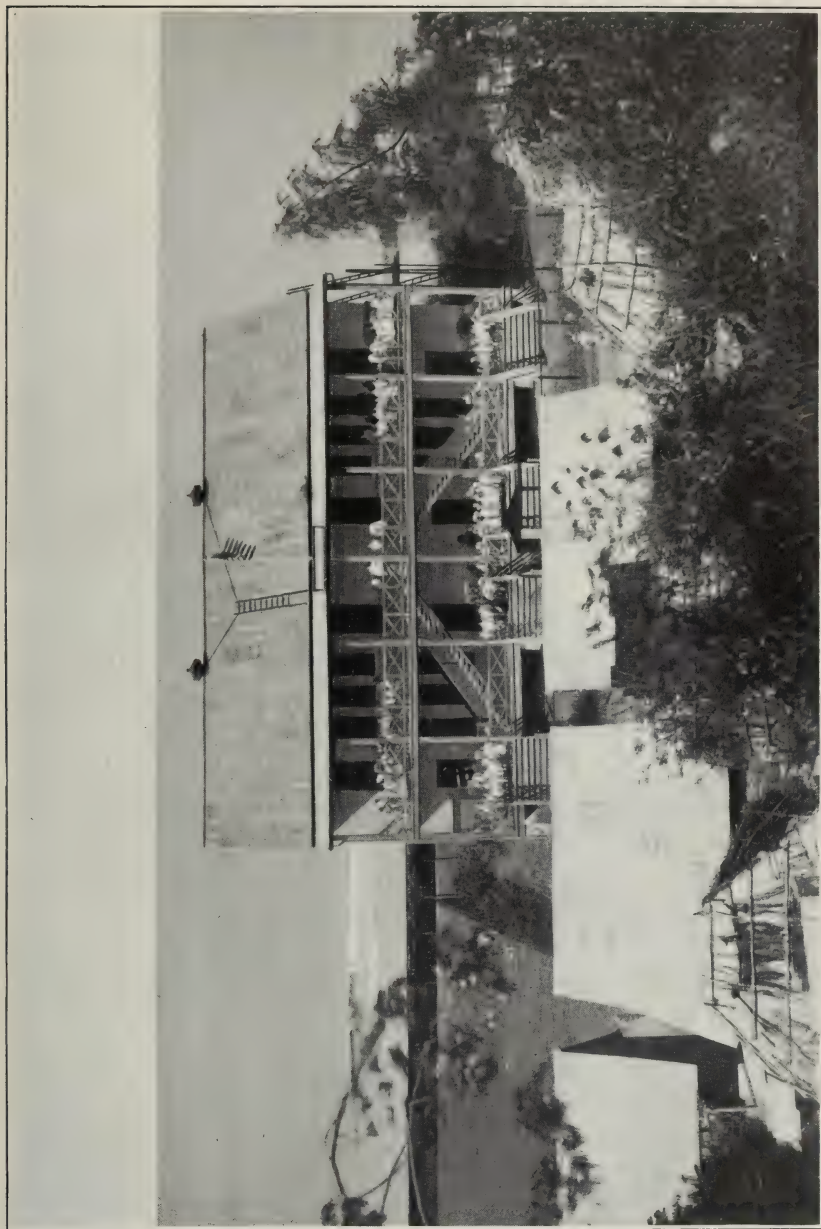
J. M. CURRY GRADED SCHOOL, CABO ROJO.



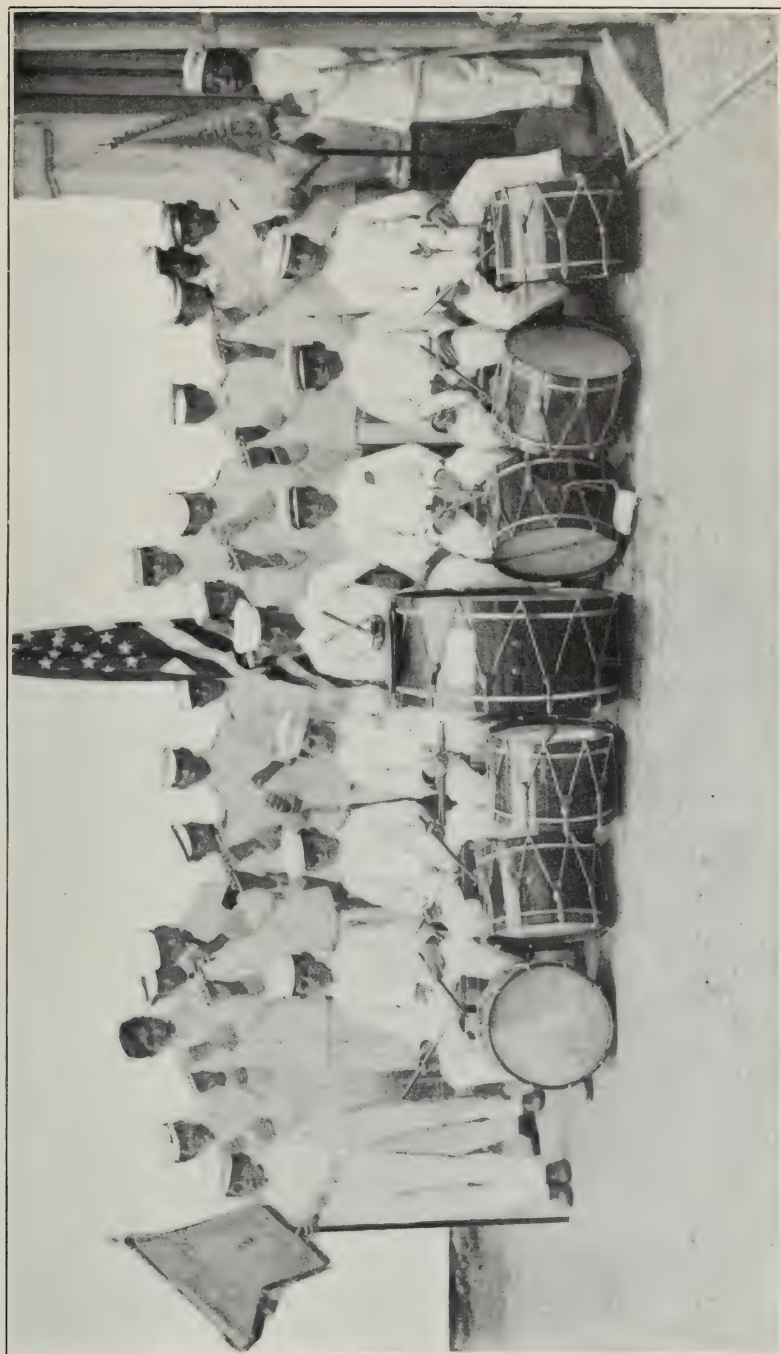
CLASS ROOM IN MAYAGUEZ GRADED SCHOOLS.



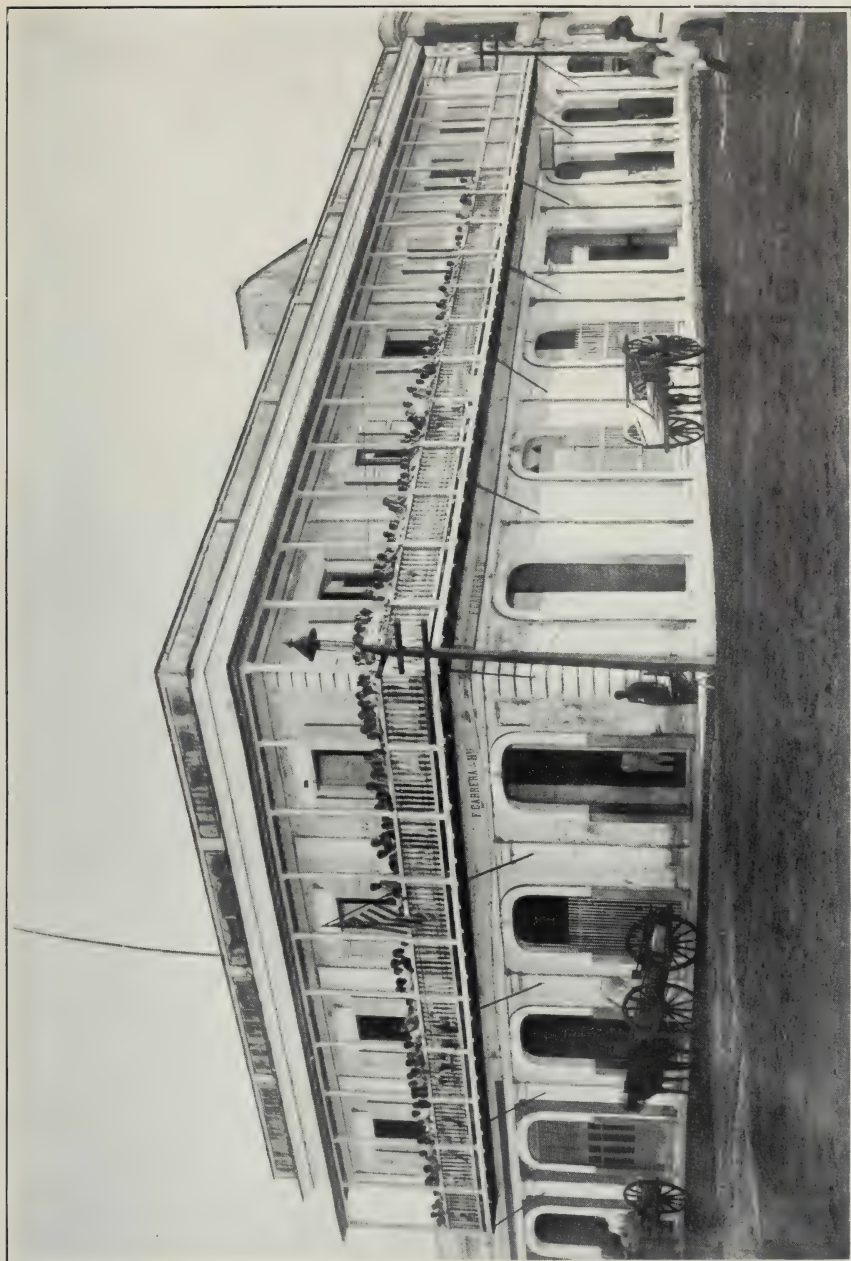
A RURAL SCHOOL, PONCE DISTRICT.



A SCHOOL BUILDING BY THE SEA—LAFAYETTE GRADED SCHOOL, AGUADILLA.



BOYS' SCHOOL BAND, MAYAGUEZ INDUSTRIAL SCHOOL.



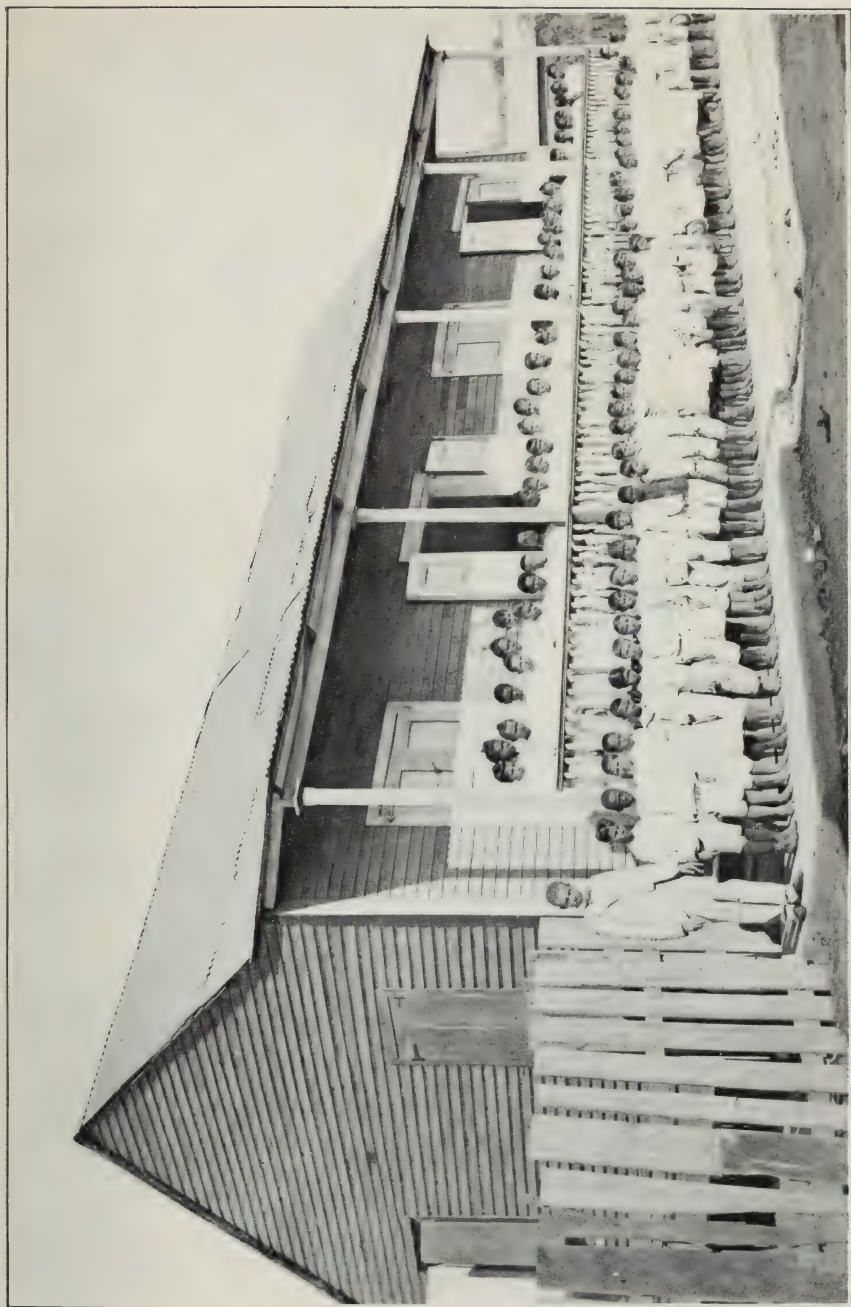
GRADED SCHOOLS, MAYAGUEZ PLAYA, OCCUPYING RENTED QUARTERS OVER A WAREHOUSE.



HIGHEST GRADE IN PRINCIPAL'S ROOM, LARES GRADED SCHOOL.



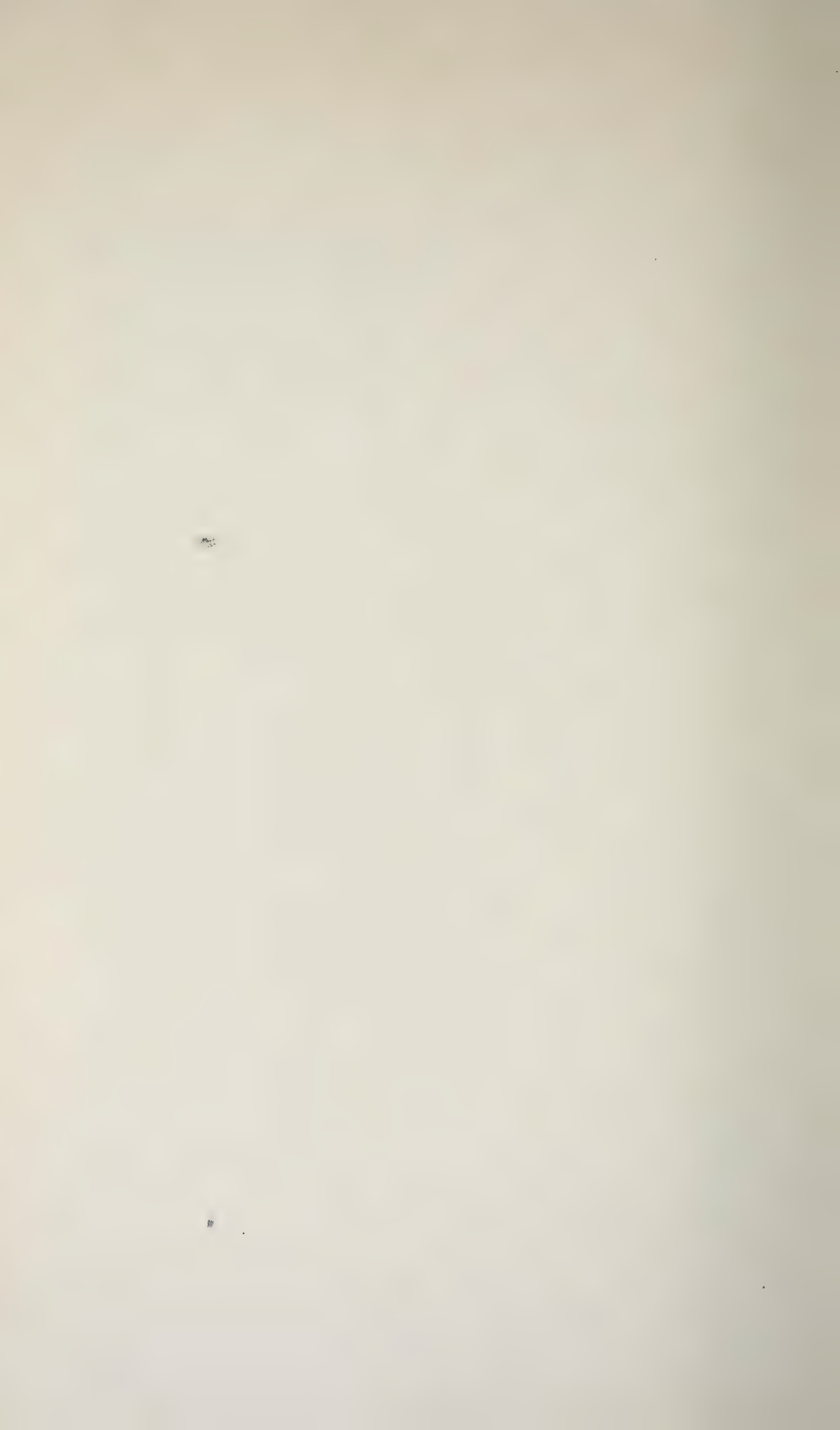
PRINCIPAL, TEACHERS, AND A FEW ADVANCED PUPILS, MAYAGUEZ INDUSTRIAL SCHOOL.



RURAL SCHOOL IN RENTED BUILDING, PONCE DISTRICT.



AGRICULTURAL RURAL SCHOOL, RIO PIEDRAS.



only one-fifth of the population of school age. Do the American people desire to assume the responsibility for the government of an island where four children out of five are denied the privilege of an elementary common school education? If not, and I can conceive of only one answer to this question when the facts are fully understood by the people of this great, wealthy, and generous nation, there is only one solution, and that is national aid from the Federal Treasury for the public schools of Porto Rico. Precedents or no precedents, traditions to the contrary notwithstanding, the Congress of the United States, and the people of the United States through their representatives in Congress, must find a way of supporting and maintaining an adequate public school system where local resources are so inadequate, but where they are being taxed more severely than we are accustomed to do at home. From \$1,000,000 to \$3,000,000 a year in addition to all insular and local appropriations could be spent profitably. No money is now being spent on educational frills or experiments. The great bulk of it is going directly and economically for the maintenance of the elementary primary schools and its essential adjuncts in the form of a normal school for the training of teachers, three small high schools, which also train teachers and furnish a preparation for a few of the more promising graduates of the primary school who are destined to become leaders in the community, and for the maintenance of a few schools of grammar-school grades.

There is an earnest desire on the part of the business interests of the island to see the investment of more capital to take the place of Spanish capital which is now being withdrawn, and there is, and has been for years, a movement in favor of a large insular loan which can be made available in some way for the promotion of agriculture. This might be met by the voting outright by the Congress of the United States of a sum of ten or twenty millions of dollars to be placed in the hands of a board of trustees, made up of the insular government officials, and to be permanently invested by them in the island and the proceeds used for the maintenance of primary schools. This money could be judiciously invested at rates of interest varying from 6 to 8 per cent, and would, therefore, furnish an annual income sufficient to double or treble the present number of schools and at the same time the capital so invested would greatly benefit the industrial development of the island and would probably insure the permanent prosperity of its agricultural interests and of the great population dependent upon those interests.

If those persons who are solicitous concerning the ultimate outcome of our experiments in colonial government would unite in an organization for the practical extension of our best American ideals and institutions to the less-favored people of a country like Porto Rico, who are now appealing to us so pathetically for the opportunity to share in the results of our civilization, and help maintain a truly educational programme in all the work of colonial government, the good that can be easily accomplished is incalculable. I know of no missionary enterprise which lies more closely at our doors and which promises so much or, indeed, seems to be a more imperative duty.

SAMUEL McCUNE LINDSAY,
Commissioner of Education.

The SECRETARY OF THE INTERIOR,
Washington, D. C.

APPENDIX.

EXHIBIT I.

REPORTS OF CHIEFS OF DIVISIONS.

FINANCIAL REPORT OF DISBURSING OFFICER.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF THE COMMISSIONER,
San Juan, September 12, 1904.

SIR: I have the honor to submit to your consideration herewith a report covering the finances of this department for the fiscal year ending June 30, 1904.

In view of the fact that a report of this character is almost entirely a matter of statistics, I shall confine myself herein merely to statements of receipts and expenditures, which I trust will prove self-explanatory.

As to the absence from this report of the appropriations pertaining to the "normal school" and "free public library," I invite your attention to "An act to establish the University of Porto Rico," etc., approved March 12, 1903, and "An act to establish the insular library of Porto Rico," approved March 12, 1903, by which this department was relieved of the administration of the funds appropriated for the above-mentioned institutions.

RECEIPTS.

"An act making appropriations for the necessary expenses of carrying on the government of Porto Rico, for the fiscal year 1904, and for other purposes," approved March 12, 1903-----	\$554, 020. 00
"An act making appropriations to supply deficiencies in appropriations for carrying on the government of Porto Rico, for the fiscal year ending June 30, 1904, and prior years, and for other purposes," approved March 10, 1904-----	61, 300. 00
Repayment to the appropriation "Common schools, contingent expenses," on account of sales of school desks to local boards, in accordance with the resolution of the executive council, adopted December 26, 1902-----	600. 00
Refund to appropriation "Common schools, salaries," on account of absences of teachers-----	55. 50
Total -----	615, 975. 50

DISBURSEMENTS.

Office of commissioner of education:	
Salaries -----	\$27, 775. 30
Contingent expenses -----	5, 277. 80
Library and museum, department of education-----	166. 79
Text books and school supplies:	
Purchases -----	29, 936. 32
Transportation -----	678. 74
Common schools:	
Salaries -----	397, 597. 50
Contingent expenses -----	18, 526. 81
Supervisors of schools:	
Salaries -----	22, 232. 42
Contingent expenses -----	9, 873. 31

Teachers' institutes and summer normal schools:

Salaries	\$6, 379. 37
Contingent expenses.....	535. 53

High and graded schools:

Salaries—	
San Juan	\$16, 326. 58
Ponce	10, 168. 46
Mayaguez	2, 852. 21
Fajardo	2, 220. 00
	<hr/>
	31, 567. 25
Contingent expenses—	
San Juan	893. 94
Ponce	485. 10
Mayaguez	147. 29
Fajardo	73. 60
	<hr/>
	1, 599. 93

Industrial schools:

Salaries—	
Principals	\$5, 849. 90
Teachers, San Juan.....	5, 140. 59
Teachers, Ponce	3, 664. 31
Teachers, Mayaguez.....	3, 184. 63
	<hr/>
	17, 839. 73
Contingent expenses—	
San Juan	2, 195. 05
Ponce	1, 475. 26
Mayaguez	1, 269. 82
	<hr/>
	4, 940. 13

Rental and repairs of buildings	2, 100. 00
---------------------------------------	------------

\$577, 026. 93

Balance	38, 948. 57
---------------	-------------

615, 975. 50

TRUST FUNDS.

SCHOOL EXTENSION IN PORTO RICO.

Available fund.

July 1, 1903. To balance, separated for convenience in accounting into—

General account	\$15, 295. 96
Erection of buildings.....	125, 521. 39
	<hr/>
	\$140, 817. 35

General account (repayments by municipalities, as follows):

Rio Grande	\$2, 014. 63
Cabo Rojo	850. 00
Adjuntas	916. 65
Añasco	701. 67
Sabana Grande	393. 31
Maricao	824. 76
San Sebastian	916. 66
Yauco	964. 62
Juana Diaz	1, 345. 94
Las Marias	722. 80
Lajas	431. 21
Rio Piedras	952. 05
Ponce	1, 200. 00
	<hr/>
	12, 234. 30

Erection of buildings (allotment on account of the following school houses, one-half of which is to be repaid by the corresponding municipalities):

Patillas	\$3,000.00	
Las Marias	10,000.00	
Rio Piedras	13,000.00	
Maricao	10,000.00	
Lajas	7,500.00	
	<u>\$43,500.00</u>	
Arecibo (allotment on account repairing industrial school building, \$1,878.50 of which is to be repaid by the municipality	3,757.00	
Rio Grande: No repayment	319.50	
	<u>\$47,576.50</u>	
		<u>\$59,810.80</u>
		200,628.15

Disbursements.

General account:

Salaries (architect, inspectors, stenographer, and draftsman)	\$6,607.73	
Traveling (architect and inspectors)	828.88	
Contingent expenses (advertising bids, cablegrams, transportation of desks to new schools, extras not included in contracts, supplementary contracts, sundries)	491.76	
Construction of rural schools (Mayaguez, 2; Camuy; Utuado, and Aguadilla)	8,848.00	
	<u>16,776.37</u>	
Erection of buildings: Contracts	62,923.66	
		79,700.03
Balance		<u>120,928.12</u>
		200,628.15

TEACHERS' PENSIONS.

Available fund.

July 1, 1903. To balance	\$52.70	
Payments by municipalities, as follows:		
Cabo Rojo	\$161.89	
Carolina	69.58	
Humacao	245.11	
Lajas	215.71	
Naguabo	137.90	
Yabucoa	112.25	
Toa Baja	155.07	
Naranjito	22.52	
Arecibo	270.08	
Ponce	940.44	
Añasco	237.74	
Morovis	67.86	
Ainbonito	303.86	
	<u>2,940.01</u>	
		<u>\$2,992.71</u>

Disbursements.

Balance due quarter ending December 31, 1902	\$117.60	
Payments pertaining to quarter ending March 31, 1903	987.40	
Payments pertaining to quarter ending June 30, 1903	987.40	
Part payment for the quarter ending September 30, 1903	872.80	
	<u>\$2,965.20</u>	
Balance		<u>27.51</u>
		2,992.71

MISCELLANEOUS ACCOUNTS.

Appropriation.

"An act making appropriations for the necessary expenses of carrying on the government of Porto Rico, for the fiscal year ending June 30, 1904, and for other purposes," approved March 12, 1903.

"Instruction and training of young men from Porto Rico in the United States" --	\$10,000.00	
Repayment to this appropriation for fiscal year 1903-4 -----	33.33	
		\$10,033.33
"Technical education of Porto Rican students in the United States" -----	5,000.00	
Repayment to this appropriation for fiscal year 1903-4 --	62.49	
"An act providing for educating certain Porto Rican young men and women in the normal school at Rio Piedras," approved March 12, 1903.-----	5,460.00	
		\$20,555.82

Disbursements.

Instruction and training of young men from Porto Rico in the United States -----	9,572.61	
Technical education of Porto Rican students in the United States -----	4,437.47	
Education of Porto Rican students in normal school at Rio Piedras :		
Allowances -----	4,431.00	
Actual traveling expense -----	123.78	
		18,564.86
Balance -----		1,990.96
		20,555.82

ESTABLISHMENT AND MAINTENANCE OF INDUSTRIAL SCHOOLS IN PORTO RICO.

July 1, 1903 (no fiscal year). To balance ----- \$23,943.79

Disbursements.

Arecibo Industrial School :		
Salaries -----	\$2,623.15	
Contingent expenses -----	1,054.99	
		\$3,678.14
Balance -----	20,265.65	
		23,943.79

SCHOOLS FOR THE TRAINING OF NURSES.

(No fiscal year.)

July 1, 1903. To balance -----	\$1,962.38
Transfer from appropriation "Maintenance of schools for training nurses" -----	1,000.00
	2,962.38

Disbursements.

San Juan nurse school -----	\$449.05	
Mayaguez nurse school -----	613.55	
		\$1,062.60
Balance -----	1,899.78	
		2,962.38

COMMON SCHOOLS EQUIPMENT.

(No fiscal year.)

Created by an act of the legislature entitled "An act to reappropriate moneys paid by municipalities and other parties to the commissioner of education for school equipment, and for other purposes," approved March 10, 1904.

Receipts.

1904.			
Apr. 16.	From the following school boards on account of sales of desks :		
	Guayama -----	\$74. 75	
	Cayey -----	150. 00	
26.	Manatí -----	174. 00	
		<hr/>	\$398. 75
May 27.	Payment for lost books -----	8. 08	
			<hr/>
			\$406. 83

Disbursements.

Apr. 22, 1904.	For desk parts to complete stock_	\$181. 87	
	Balance -----	224. 96	
		<hr/>	406. 83

MISCELLANEOUS RECEIPTS.

From rent of Fajardo school farm -----	216. 85
Collected from teachers and superintendents for lost books prior to act of March 10, 1904, "Common schools equipment," and not available for disbursement -----	1, 113. 99
<hr/>	
Total -----	1, 330. 84
Duly deposited with treasurer of Porto Rico -----	1, 330. 84

RECAPITULATION.

	Receipts.	Disbursements.
Regular appropriation -----	\$615, 975. 50	\$577, 026. 93
School extension in Porto Rico, trust fund -----	200, 628. 15	79, 700. 03
Teachers' pensions, trust fund -----	2, 992. 71	2, 965. 20
Beneficiaries -----	20, 555. 82	18, 564. 86
Establishment and maintenance of industrial schools -----	23, 943. 79	3, 678. 14
School for the training of nurses -----	2, 962. 38	1, 062. 60
Common schools, equipment -----	406. 83	181. 87
Balance -----		184, 285. 55
<hr/>		
Total -----	867, 465. 18	867, 465. 18

There are still outstanding against the department bills aggregating \$232.03, which will be paid as soon as the vouchers are received, properly executed.

In closing, I desire to acknowledge the untiring work of the men in this division, and to thank them for the interest and faithfulness they have shown in the execution of same during the past year.

To the commissioner I desire to express my thanks for his confidence and cheerful assistance at all times, and to record my sincere regret at the loss of so estimable a chief.

I have the honor to be, sir, very respectfully,

T. R. WILDMAN,

Disbursing Officer and Chief of Division.

The COMMISSIONER OF EDUCATION, *San Juan, P. R.*

STATISTICAL REPORT OF THE CHIEF OF DIVISION OF SCHOOL SUPERVISION AND STATISTICS.

DEPARTMENT OF EDUCATION OF PORTO RICO,

OFFICE OF THE COMMISSIONER,

San Juan, September 1, 1904.

SIR: I beg to submit the annual report of the division of supervision and statistics.

I would especially call your attention to Nos. 34 and 35 in the general résumé,^a

^a Given on page — in the main text of the report.

giving number of pupils enrolled in private schools, by sex and color. Herebefore, at least since the American invasion, this department has collected no data whatever regarding private schools; and this year for the first time we are able to give an estimate relatively exact of the number of pupils therein enrolled. The list of private schools submitted by the superintendents does not include those with an enrollment less than 15 pupils, of which there are undoubtedly a great many scattered throughout the island. Regular forms for reporting the enrollment have been sent out to the teachers or principals in charge of the private schools, and tabulations were subsequently made by the statistical clerk. The reports as received show that the number of private schools with an attendance of more than 30 pupils is very small indeed, and that the enrollment of these schools constitutes only a fraction as compared with the total enrollment of the island. There are only a few schools of a private character in San Juan, Ponce, and Mayaguez which can really compete with the public schools. As the enrollment and attendance, however, are good in the public schools of these towns and the accommodations are yet insufficient to receive all pupils applying for admission, we need not fear but that the public school will maintain its position of priority in the public estimation.

PROFESSIONAL REPORTS OF TEACHERS—METHOD EMPLOYED IN CHECKING OF SAME.

Some two months before the opening of the present school year a large cabinet with spacious drawers was built for the use of this division. Herein are filed the different forms as soon as received from the respective superintendents and principals, beginning with the statistical report, the professional report, and the report on the equipment and material conditions of the school. We have by this means been able to keep a very close check on the work of each teacher and note the actual conditions of each school from month to month, this system, furthermore, allowing us to compare readily the reports of the different months. The advantages gained thereby have been many. The superintendents were formerly required to report on carbon sheets the work of each school. Such reports could not be saved for any length of time and they were difficult to refer to. The system in use at present will allow us from now on to compare and examine from year to year with sufficient detail and exactness all the necessary data relating to any school or teacher. This same system was placed in operation for the financial reports of the school boards; also for superintendents' statistical reports.

CONFERENCES OF SUPERINTENDENTS.

I shall make only brief mention of the superintendents' conference held during the Christmas vacation. The experience of the past four years has shown the value and importance of these annual conferences. The exchange of ideas effected and the knowledge of the actual workings of other districts acquired in these meetings is of great value to all the superintendents and members of the department. The suggestion has been made that the point of reunion from year to year be changed, and that the conferences be opened to the public, at least during the afternoon or evening sessions. The idea seems to me worthy of being followed, and, if possible, I would suggest that for the coming year the sessions be held in Ponce or Mayaguez.

EXHIBIT OF PUPILS' WORK FOR LOUISIANA PURCHASE EXPOSITION.

During many months this division was busily occupied in giving instructions and attending to the numerous details in connection with the preparation of the exhibit for the exposition referred to above. Special paper on which the work was to be submitted was prepared and sent out to all the superintendents and principals. Not only were special instructions sent out, but extracts from the general circular of the educational committee of the exposition were distributed as well. As a whole, the work submitted was carefully prepared and indicative of actual conditions in our schools. Very little of the work had to be rejected because of lack of margin, poor arrangement, finger prints, or other marks which would detract from or render the same unrepresentable. The exhibit from the industrial schools was especially good, and I feel safe to say will be one of the most salient features of our school exhibit. All classes and grades of schools were represented with the exception of the normal school.

IMPROVED ENROLLMENT AND ATTENDANCE.

Special effort has been made to secure an improved enrollment and attendance during the present school year. The summary of statistics for the first term of the present school year shows that the enrollment for the term in question had improved in all the districts of the island as compared with a similar period for last year, with the exception of the districts of Yauco, Arecibo, and Bayamón; also that the average daily attendance had improved in all districts excepting San Germán, Aguadilla, Utuado, and Bayamón. The summary of statistics for the first and second terms also shows a substantial increase over last year in the important items of enrollment and attendance per school and the total number of pupils and per cent of the estimated school population attending the schools each day throughout the island. This showing, I think, is very satisfactory. In furtherance of this improvement, this division entered into frequent communication with the school boards, teachers, and superintendents by means of circular and personal letters, and in a number of cases made visits of inspection to the districts.

DISTRICTS VISITED AND TOURS OF INSPECTION.

During the past school year I have had occasion to visit many of the school districts on matters relating to the work of this division. In all I have visited 10 districts, and some of them twice or three times. My office duties have not permitted me, however, to be absent as frequently as I should have liked, though in many ways I believe it would be desirable for the chief of this division to spend more time in familiarizing himself with the actual conditions of each district for the purpose of consulting with superintendents and teachers and suggesting necessary changes and improvements in the schools and the work of the district.

CLASSES IN ENGLISH FOR PORTO RICAN TEACHERS.

The present year is the third during which English classes have been outlined and continuously followed throughout the school year by the Porto Rican teachers. The work this year for all grades of teachers has naturally been somewhat more advanced and difficult than that of previous years, as is to be expected by reason of their greater knowledge of the language and the increased conveniences and means of studying the same. From what I have been able to learn by conversation with teachers and superintendents I am firmly convinced that the classes have grown in importance and value, and there is little doubt now but that the Porto Rican teacher is increasingly desirous of qualifying himself to teach in this language. An additional incentive is now offered him in view of the increased salary allowed the Porto Rican teacher who is able to teach in the English language.

DISTRICT CIRCULAR LETTERS.

Another important and far-reaching plan introduced this year has been the interchange of circular letters among the superintendents. This has been made possible by the general adoption and use of the typewriter and mimeograph by nearly all the superintendents. The importance and value of this exchange of circular letters has already been seen and appreciated by this division. Many of the superintendents have prepared and distributed as many as 30 circular letters among their teachers during the year, touching upon the different phases of school work, on the one hand, and conveying to them, on the other, instructions received from the department. Outlines on the important points of school work of great practical value to the teachers have also been sent out by this same means.

ATTENDANCE OF RURAL TEACHERS AT THE INSULAR NORMAL SCHOOL.

By section 55 of the school laws authorization is granted the commissioner of education to appoint five rural teachers from each and every district during the course of the year to attend the insular normal school. By reason of the difficulty in obtaining substitutes it has not been possible, however, for every district to have its full representation. The following are the districts which have had less than the five teachers in attendance.

Humacao	4
Caguas	4
Guayama	1
Yauco	0
Aguadilla	4
Arecibo	4
Utua	2

According to the reports which we have received from the principal at the normal school most of the rural teachers attending have been faithful as students and have shown a desire and willingness to do earnest and conscientious work, and with few exceptions it is to be presumed that these teachers have returned to their schools with an increased knowledge and ability to satisfactorily perform their duties. Only a few of these teachers showed any reluctance to follow the regulations of the school and failed to attend assiduously to their class-room work.

RECOMMENDATIONS.

While the work in English as outlined for the native teachers has on the whole given very satisfactory results, it is believed that the division of teachers into groups according to their certificates does not allow the best possible arrangement whereby they may obtain the greatest possible advantage and profit from these classes. As is well known, the knowledge of English which the native teacher possesses does not correspond with his grade of certificate. It depends altogether upon the amount of work which the native teacher may have done and the interest taken in the subject during the past five or six years. Many of the principal teachers are very proficient and well versed in the English language, while others have an extremely limited knowledge of the language in question. The same is true of the graded and rural teachers. I would propose, therefore, that a reclassification be made of the native teachers whereby they be graded according to their actual present-day knowledge of the English language, taking as a basis the results of the English examinations for the present year.

Class No. 1 would be composed of those principal teachers who obtain more than 85 per cent in the examination, and of graded and rural with more than 90 per cent.

Class No. 2, principal teachers obtaining between 70 and 90 per cent; also graded and rural ranking between 75 and 90 per cent.

Class No. 3 would be composed of the principal teachers obtaining less than 70 per cent, and graded and rural less than 75 per cent.

This will enable us to place English work on a basis whereby all the teachers with an equal knowledge of the English language in any locality may be grouped together and enabled to pursue diligently and with profit the work which is outlined for them.

I would also suggest that an examining board be formed to test the oral knowledge of English of the native teachers. The superintendents of three contiguous districts could be authorized to act as such, the examination being held in the respective district headquarters during three consecutive Saturdays. The mark that the teacher might obtain in this oral examination as to correctness of pronunciation, fluency of expression, and ability to understand the English language, would form an integral part of the standing which the teacher might receive in her annual examination.

In conclusion, I take this occasion to thank you and the assistant commissioner for the many helpful suggestions and kind advice which you have tendered me during this year, and also to express to the employees of this division my many thanks for their valuable and unfailing assistance.

Respectfully submitted.

L. R. SAWYER, *Chief of Division.*

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools.*

(First term, 1903-4.)

COMMON SCHOOLS, BY COLOR.

School district	Color and municipality.	Male.			Female.			Total graded.	Total rural.	Total white.
		Graded.	Rural.	Total.	Graded.	Rural.	Total.			
1	WHITE.									
	Carolina	139	344	483	139	157	296	278	501	779
	Rio Piedras	132	140	272	108	82	190	240	222	462
	San Juan	744	133	877	717	50	767	1,461	183	1,644
	District	1,015	617	1,632	964	289	1,253	1,979	906	2,885
2	Fajardo	265	209	474	246	119	365	511	328	839
	Naguabo	83	139	222	70	80	150	153	219	372
	Rio Grande	123	357	480	126	212	338	249	569	818
	District	471	705	1,176	442	411	853	913	1,116	2,029
	Humacao	208	194	402	220	100	320	428	294	722
3	San Lorenzo	165	210	375	129	102	231	294	312	606
	Yabucoa	112	164	276	78	64	142	190	228	418
	District	485	568	1,053	427	266	693	912	834	1,746
	Aguas Buenas	60	114	174	60	61	121	120	175	295
	Caguas	266	249	515	234	169	403	500	418	918
4	Cayey	221	320	531	210	128	338	431	448	879
	District	547	683	1,230	504	358	862	1,051	1,041	2,092
	Guayama	253	199	452	199	108	307	452	307	759
	Patillas	32	157	189	39	25	64	71	182	253
	District	285	356	641	238	133	371	523	489	1,012
5	Aibonito	130	152	282	115	82	197	245	234	479
	Barros	107	384	491	55	175	230	162	559	721
	Comerio	75	222	297	59	76	135	134	298	432
	District	312	758	1,070	229	333	562	541	1,091	1,632
	Coamo	155	376	531	111	227	338	266	603	869
6	Juana Diaz	127	304	431	85	161	246	212	465	677
	Santa Isabel	38	82	120	51	66	117	89	148	237
	District	320	762	1,082	247	454	701	567	1,216	1,783
	Ponce	687	636	1,323	579	496	1,075	1,266	1,132	2,398
	Lajas	42	234	276	46	146	192	88	380	468
7	Sabana Grande	162	196	358	154	114	268	316	310	626
	Yauco	231	293	524	266	186	452	497	479	976
	District	435	723	1,158	466	446	912	901	1,169	2,070
	Cabo Rojo	125	296	421	140	172	312	265	468	733
	Maricao	53	48	101	75	19	94	128	67	195
8	San German	215	212	427	175	195	370	390	407	797
	District	393	556	949	390	386	776	783	942	1,725
	Añasco	161	182	343	153	115	268	314	297	611
	Las Marias	31	102	133	41	55	96	72	157	229
	Mayaguez	487	377	864	356	295	651	843	672	1,515
9	District	679	661	1,340	550	465	1,015	1,229	1,126	2,355
	Aguada	67	138	205	56	63	119	123	201	324
	Aguanilla	298	575	873	200	224	424	498	799	1,297
	San Sebastian	130	378	508	117	174	291	247	552	799
	District	495	1,091	1,586	373	461	834	868	1,552	2,420
10	Camuy	303	424	727	274	117	391	577	541	1,118
	Isabela	116	309	425	97	142	239	213	451	664
	District	719	733	1,152	371	259	630	790	992	1,782
	Arecibo	339	509	848	334	318	652	673	827	1,500
	Lares	136	276	412	105	149	254	241	425	666
11	District	475	785	1,260	439	467	906	914	1,252	2,166

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS, BY COLOR—Continued.

School district.	Color and municipality.	Male.			Female.			Total graded.	Total rural.	Total white.
		Graded.	Rural.	Total.	Graded.	Rural.	Total.			
15	WHITE—continued.									
	Adjuntas	156	214	370	135	130	265	291	344	635
	Utuado	232	454	686	196	222	418	428	676	1,104
	District	388	668	1,056	331	352	683	719	1,020	1,739
16	Ciales	111	264	375	94	128	222	205	392	597
	Manati	259	284	543	160	168	328	419	452	871
	Morovis	83	274	357	55	72	127	138	346	484
	District	453	822	1,275	309	368	677	762	1,190	1,952
17	Toa Alta	167	281	448	140	153	293	307	434	741
	Vega Baja	217	285	502	192	148	340	400	433	842
	District	384	566	950	332	301	633	716	867	1,583
18	Bayamón	318	608	926	306	408	714	624	1,016	1,640
	Vieques	60	95	155	86	61	147	146	156	302
	Total white ...	8,621	12,393	21,014	7,583	6,714	14,297	16,204	19,107	35,311
1	COLORED.									
	Carolina	61	186	247	64	115	179	125	301	426
	Rio Piedras	66	105	171	60	70	130	126	175	301
	San Juan	436	151	587	477	30	507	913	181	1,094
2	District	563	442	1,005	601	215	816	1,164	657	1,821
	Fajardo	115	63	178	150	37	187	265	100	365
	Naguabo	24	47	71	25	34	59	49	81	130
	Rio Grande	132	272	404	130	160	290	262	432	694
3	District	271	382	653	305	231	536	576	613	1,189
	Humacao	61	60	121	45	25	70	106	85	191
	San Lorenzo	51	78	129	50	34	84	101	112	213
	Yabucoa	67	70	137	37	46	83	104	116	220
4	District	179	208	387	132	105	237	311	313	624
	Aguas Buenas	19	36	55	19	14	33	38	50	88
	Caguas	114	127	241	81	101	182	195	228	423
	Cayey	52	114	166	55	49	104	107	163	270
5	District	185	277	462	155	164	319	340	441	781
	Guayama	286	187	473	207	96	303	493	283	776
	Patillas	30	59	89	21	19	40	51	78	129
	District	316	246	562	228	115	343	544	361	905
6	Aibonito	48	34	82	13	16	29	61	50	111
	Barros	25	44	69	17	21	38	42	65	107
	Comerio	19	35	54	19	13	32	38	48	86
	District	92	113	205	49	50	99	141	163	304
7	Coamo	104	170	274	78	99	177	182	269	451
	Juana Diaz	57	133	190	65	68	133	122	201	323
	Santa Isabel	35	33	68	28	23	51	63	56	119
	District	196	336	532	171	190	361	367	526	893
8	Ponce	321	336	657	244	302	546	565	638	1,203
	Lajas	4	24	28	3	16	19	7	40	47
	Sabana Grande	7	43	50	9	30	39	16	73	89
	Yauco	96	117	213	119	68	187	215	185	400
9	District	107	184	291	131	114	245	238	298	536
	Cabo Rojo	22	77	99	14	31	45	36	108	144
	Maricao	19	5	24	17	10	27	36	15	51
	San Germán	80	90	170	53	51	104	133	141	274
10	District	121	172	293	84	92	176	205	264	469

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS, BY COLOR—Continued.

School district.	Color and municipality.	Male.			Female.			Total graded.	Total rural.	Total white.
		Graded.	Rural.	Total.	Graded.	Rural.	Total.			
	COLORED—cont'd.									
11	Añasco.....	41	34	75	48	63	111	89	97	186
	Las Marias.....	3	31	34	5	17	22	8	48	56
	Mayaguez.....	177	81	258	154	63	217	331	144	475
	District.....	221	146	367	207	143	350	428	289	717
12	Aguada.....	31	16	47	19	19	38	50	35	85
	Aguadilla.....	62	108	170	67	69	136	129	177	306
	San Sebastian.....	16	18	34	11	13	24	27	31	58
	District.....	109	142	251	97	101	198	206	243	449
13	Camuy.....	42	30	72	25	4	29	67	34	101
	Isabela.....	13	27	40	5	23	28	18	50	68
	District.....	55	57	112	30	27	57	85	84	169
14	Arecibo.....	127	170	297	97	126	223	224	296	520
	Lares.....	16	14	30	9	1	10	25	15	40
	District.....	143	184	327	106	127	233	249	311	560
15	Adjuntas.....	17	15	32	5	10	15	22	25	47
	Utua.....	29	27	56	20	8	28	49	35	84
	District.....	46	42	88	25	18	43	71	60	131
16	Ciales.....	19	28	47	11	13	24	30	41	71
	Manati.....	79	99	178	75	67	142	154	166	320
	Morovis.....	4	33	37	1	.....	1	5	33	38
	District.....	102	160	262	87	80	167	189	240	429
17	Toa Alta.....	133	50	183	87	61	148	220	111	331
	Vega Baja.....	72	69	141	46	42	88	118	111	229
	District.....	205	119	324	133	103	236	338	222	560
18	Bayamón.....	196	311	507	152	237	409	348	568	916
	Vieques.....	61	62	123	58	26	84	119	88	207
	Total colored..	3,489	3,919	7,408	2,995	2,460	5,455	6,484	6,379	12,863
	Total white...	8,621	12,393	21,014	7,583	6,714	14,297	16,204	19,107	35,311
	Grand total...	12,110	16,312	28,422	10,578	9,174	19,752	22,688	25,486	48,174

COMMON SCHOOLS, BY SEX.

School district.	Municipality.	Graded.			Rural.			Total male.	Total female.	Total enrollment.
		Male.	Female.	Total enrollment.	Male.	Female.	Total enrollment.			
1	Carolina.....	200	203	403	530	272	802	730	475	1,205
	Rio Piedras.....	198	168	366	245	152	397	443	320	763
	San Juan.....	1,180	1,194	2,374	284	80	364	1,464	1,274	2,738
	District.....	1,578	1,565	3,143	1,059	504	1,563	2,637	2,069	4,706
2	Fajardo.....	380	396	776	272	156	428	652	552	1,204
	Naguabo.....	107	95	202	186	144	330	293	209	502
	Rio Grande.....	255	256	511	629	372	1,001	884	628	1,512
	District.....	742	747	1,489	1,087	642	1,729	1,829	1,389	3,218
3	Humacao.....	269	265	534	254	125	379	523	390	913
	San Lorenzo.....	216	179	395	288	136	424	564	315	819
	Yabucoa.....	179	115	294	234	110	344	413	225	638
	District.....	664	559	1,223	776	371	1,147	1,440	930	2,370

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS, BY SEX—Continued.

School district.	Municipality.	Graded.			Rural.			Total male.	Total female.	Total enrollment.
		Male.	Female.	Total enrollment.	Male.	Female.	Total enrollment.			
4	Aguas Buenas.....	79	79	158	150	75	225	229	154	383
	Caguas.....	380	315	695	376	270	646	756	585	1,341
	Cayey.....	273	265	538	434	177	611	707	442	1,149
	District.....	732	659	1,391	960	522	1,482	1,692	1,181	2,873
5	Guayama.....	539	406	945	386	204	590	925	610	1,535
	Patillas.....	62	60	122	216	44	260	278	104	382
	District.....	601	466	1,067	602	248	850	1,203	714	1,917
6	Aibonito.....	178	128	306	186	98	284	364	226	590
	Barros.....	132	72	204	428	196	624	560	268	828
	Comerio.....	94	78	172	257	89	346	351	167	518
	District.....	404	278	682	871	383	1,254	1,275	661	1,936
7	Coamo.....	259	189	448	546	326	872	805	515	1,320
	Juana Díaz.....	184	150	334	437	229	666	621	379	1,000
	Santa Isabel.....	73	79	152	115	89	204	188	168	356
	District.....	516	418	934	1,098	644	1,742	1,614	1,062	2,676
8	Ponce.....	1,008	823	1,831	972	798	1,770	1,980	1,621	3,601
9	Lajas.....	46	49	95	258	162	420	304	211	515
	Sabana Grande.....	169	163	332	239	141	383	408	307	715
	Yauco.....	327	385	712	410	254	664	737	639	1,376
	District.....	542	597	1,139	907	560	1,467	1,449	1,157	2,606
10	Cabo Rojo.....	147	154	301	373	203	576	520	357	877
	Maricao.....	72	92	164	53	29	82	125	121	246
	San Germán.....	295	228	523	302	246	548	597	474	1,071
	District.....	514	474	988	728	478	1,206	1,242	952	2,194
11	Añasco.....	202	201	403	216	178	394	418	379	797
	Las Marias.....	34	46	80	133	72	205	167	118	285
	Mayaguez.....	664	510	1,174	458	358	816	1,122	868	1,990
	District.....	900	757	1,657	807	608	1,415	1,707	1,365	3,072
12	Aguada.....	98	75	173	154	82	236	252	157	409
	Aguadilla.....	360	267	627	683	293	976	1,043	560	1,603
	San Sebastian.....	146	128	274	396	187	583	542	315	857
	District.....	604	470	1,074	1,233	562	1,795	1,837	1,032	2,869
13	Camuy.....	345	299	644	454	121	575	799	420	1,219
	Isabela.....	129	102	231	336	165	501	465	267	732
	District.....	474	401	875	790	286	1,076	1,264	687	1,951
14	Arecibo.....	466	431	897	679	444	1,123	1,145	875	2,020
	Lares.....	152	114	266	290	150	440	442	264	706
	District.....	618	545	1,163	969	594	1,563	1,587	1,139	2,726
15	Adjuntas.....	173	140	313	229	140	369	402	280	682
	Utuado.....	261	216	477	481	230	711	742	446	1,188
	District.....	434	356	790	710	370	1,080	1,144	726	1,870
16	Ciales.....	130	105	235	292	141	433	422	246	668
	Manatí.....	338	235	573	383	235	618	721	470	1,191
	Morovis.....	87	56	143	307	72	379	394	128	522
	District.....	555	396	951	982	448	1,430	1,537	844	2,381
17	Toa Alta.....	300	227	527	331	214	545	631	441	1,072
	Vega Baja.....	289	238	527	354	190	544	643	428	1,071
	District.....	589	465	1,054	685	404	1,089	1,274	869	2,143
18	Bayamón.....	514	458	972	919	665	1,584	1,433	1,123	2,556
	Vieques.....	121	144	265	157	87	244	278	231	509
	District.....									
	Total.....	12,110	10,578	22,688	16,312	9,174	25,486	28,422	19,752	48,174

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

SPECIAL SCHOOLS, BY COLOR.

School district.	Municipality.	Male.					Female.					Grand total.		
		High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total.	High.	Industrial.	Night.	Agricultural.		Kindergarten.	Total.
WHITE.														
1	Carolina				13		13							13
	San Juan	36	40	85		40	201	13	43	37		44	137	338
	District	36	40	85	13	40	214	13	43	37		44	137	351
2	Fajardo			27			27			8			8	35
	Rio Grande			27			27							27
	District			54			54			8			8	62
3	Humacao			12	25		37				4		4	41
	San Lorenzo			34	19		53				12		12	65
	District			46	44		90				16		16	106
4	Cayey			15			15			11			11	26
5	Guayama			25	3		28			3	2		5	33
6	Barros				52		52				18		18	70
7	Coamo			6			6			25			25	31
	Juana Diaz			25			25			7			7	32
	District			31			31			32			32	63
8	Ponce	19		62	11	25	117	9		49	5	29	92	209
9	Lajas				46		46				8		8	54
	Sabana Grande				18		18				20		20	38
	District				64		64				28		28	92
10	Cabo Rojo				27		27				25		25	52
	San Germán			41			41							41
	District			41	27		68				25		25	93
11	Añasco			22			22							22
	Mayaguez	6	30	41			77	10	28				38	115
	District	6	30	63			99	10	28				38	137
12	Aguadilla			12			12			9			9	21
	San Sebastian			19			19			4			4	23
	District			31			31			13			13	44
13	Camuy				41		41							41
14	Lares			47			47			17			17	64
15	Utua			30	35		65			14	25		39	104
16	Manatí			19			19							19
17	Toa Alta				43		43				16		16	59
18	Bayamón			22			22				9		9	31
Total white		61	70	549	355	65	1,100	32	71	184	144	73	504	1,604
COLORED.														
1	Carolina				32		32							32
	San Juan	7	12	29		19	67	3	8	11		20	42	109
	District	7	12	29	32	19	99	3	8	11		20	42	141
2	Fajardo			20			20			7			7	27
	Rio Grande			32			32							32
	District			52			52			7			7	59

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

SPECIAL SCHOOLS, BY COLOR—Continued.

School district.	Municipality.	Male.					Female.					Grand total.		
		High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total.	High.	Industrial.	Night.	Agricultural.		Kindergarten.	Total.
	COLORED—continued.													
3	Humacao			18	7		25				6		6	31
	San Lorenzo			22	9		31			1	10		11	42
	District			40	16		56			1	16		17	73
4	Cayey			17			17			5			5	22
5	Guayama			24	23		47				6		6	53
6	Barros				7		7				2		2	9
7	Coamo			2			2			7			7	9
	Juana Diaz			24			24			1			1	25
	District			26			26			8			8	34
8	Ponce			45	12	3	60			36	5	3	44	104
9	Lajas										3		3	3
	Sabana Grande				8		8				6		6	14
	District				8		8				9		9	17
10	Cabo Rojo				5		5				1		1	6
	San German			33			33							33
	District			33	5		38				1		1	39
11	Añasco			9			9							9
	Mayaguez	2	13	44			59	3	25				28	87
	District	2	13	53			68	3	25				28	96
12	Aguadilla			28			28			4			4	32
	San Sebastian			10			10			3			3	13
	District			38			38			7			7	45
14	Lares			7			7			3			3	10
15	Utua			13	4		17			1	1		2	19
16	Manati			21			21							21
17	Toa Alta				10		10				2		2	12
18	Bayamón				16		16				11		11	27
	Total colored ...	9	25	398	133	22	587	6	33	79	53	23	194	781
	Total white	61	70	549	355	65	1,100	32	71	184	144	73	504	1,604
	Grand total	70	95	947	488	87	1,687	38	104	263	197	96	698	2,385

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

SPECIAL SCHOOLS, BY COLOR.

School district.	Municipality.	High.			Industrial.			Night.			Agricul- tural.			Kinder- garten.			Total white.	Total colored.	Total enroll- ment.
		White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.			
1	Carolina	49	10	59	83	20	103	122	40	162	13	32	45	84	39	123	13	32	45
	San Juan	49	10	59	83	20	103	122	40	162	13	32	45	84	39	123	338	169	447
	District	49	10	59	83	20	103	122	40	162	13	32	45	84	39	123	351	141	492
2	Fajardo							25	27	62							35	27	62
	Río Grande							27	32	59							27	32	59
	District							62	59	121							62	59	121
3	Humacao							12	18	30							41	31	72
	San Lorenzo							34	23	57							65	42	107
	District							46	41	87							106	73	179
4	Cayey							26	22	48							26	22	48
5	Guayama							28	24	52							33	53	86
6	Barros																70	9	79
7	Coamo							31	9	40							31	9	40
	Juana Díaz							32	25	57							32	25	57
	District							63	34	97							63	34	97
8	Ponce	28		28				111	81	192	16	17	33	54	6	60	209	104	313
9	Lajas										54	3	57				54	3	57
	Sabana Grande										38	14	52				38	14	52
	District										92	17	109				92	17	109
10	Cabo Rojo										52	6	58				52	6	58
	San German							41	33	74							41	33	74
	District							41	33	74	52	6	58				93	39	132
11	Añasco							22	9	31							22	9	31
	Mayaguez	16	5	21	58	38	96	41	44	85							115	87	202
	District	16	5	21	58	38	96	63	53	116							137	96	233
12	Aguadilla							21	32	53							21	32	53
	San Sebastian							23	13	36							23	13	36
	District							44	45	89							44	45	89
13	Camuy										41		41				41		41
14	Lares							64	10	74							64	10	74
15	Utua							44	14	58	60	5	65				104	19	123
16	Manatí							19	21	40							19	21	40
17	Toa Alta										59	12	71				59	12	71
18	Bayamón										31	27	58				31	27	58
	Total	93	15	108	141	58	199	733	477	1,210	499	186	685	138	45	183	1,604	781	2,385

COMMON SCHOOLS AND SPECIAL SCHOOLS.

School district.	Municipality.	White.			Colored.			Total male.	Total female.	Total enrollment.
		Male.	Fe- male.	Total.	Male.	Fe- male.	Total.			
1	Carolina	496	296	792	279	179	458	775	475	1,250
	Río Piedras	272	190	462	171	130	301	443	320	763
	San Juan	1,078	904	1,982	654	549	1,203	1,732	1,453	3,185
	District	1,846	1,390	3,236	1,104	858	1,962	2,950	2,248	5,198

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS AND SPECIAL SCHOOLS—Continued.

School district.	Municipality.	White.			Colored.			Total male.	Total female.	Total enrollment.
		Male.	Female.	Total.	Male.	Female.	Total.			
2	Fajardo.....	501	373	874	198	194	392	699	567	1,266
	Naguabo.....	222	150	372	71	59	130	293	209	502
	Rio Grande.....	507	338	845	436	290	726	943	628	1,571
	District.....	1,230	861	2,091	705	543	1,248	1,935	1,404	3,339
3	Humacao.....	439	324	763	146	76	222	585	400	985
	San Lorenzo.....	428	243	671	160	95	255	588	338	926
	Yabucoa.....	276	142	418	137	83	220	413	225	638
	District.....	1,143	709	1,852	443	254	697	1,586	963	2,549
4	Agua Buenas.....	174	121	295	55	33	88	229	154	383
	Caguas.....	515	403	918	241	182	423	756	585	1,341
	Cayey.....	556	349	905	183	109	292	739	458	1,197
	District.....	1,245	873	2,118	479	324	803	1,724	1,197	2,921
5	Guayama.....	480	312	792	520	309	829	1,000	621	1,621
	Patillas.....	189	64	253	89	40	129	278	104	382
	District.....	669	376	1,045	609	349	958	1,278	725	2,003
6	Aibonito.....	282	197	479	82	29	111	364	226	590
	Barros.....	543	248	791	76	40	116	619	288	907
	Comerio.....	297	135	432	54	32	86	351	167	518
	District.....	1,122	580	1,702	212	101	313	1,334	681	2,015
7	Coamo.....	537	363	900	276	184	460	813	547	1,360
	Juana Diaz.....	456	253	709	214	134	348	670	387	1,057
	Santa Isabel.....	120	117	237	68	51	119	188	168	356
	District.....	1,113	733	1,846	558	369	927	1,671	1,102	2,773
8	Ponce.....	1,440	1,167	2,607	717	590	1,307	2,157	1,757	3,914
9	Lajas.....	322	200	522	28	22	50	350	222	572
	Sabana Grande.....	376	288	664	58	45	103	434	333	767
	Yauco.....	524	452	976	213	187	400	737	639	1,376
	District.....	1,222	940	2,162	299	254	553	1,521	1,194	2,715
10	Cabo Rojo.....	448	337	785	104	46	150	552	383	935
	Maricao.....	101	94	195	24	27	51	125	121	246
	San Germán.....	468	370	838	203	104	307	671	474	1,145
	District.....	1,017	801	1,818	331	177	508	1,348	978	2,326
11	Añasco.....	365	268	633	84	111	195	449	379	828
	Las Marias.....	133	96	229	34	22	56	167	118	285
	Mayaguez.....	941	689	1,630	317	245	562	1,258	934	2,192
	District.....	1,439	1,053	2,492	435	378	813	1,874	1,431	3,305
12	Aguada.....	205	119	324	47	38	85	252	157	409
	Aguadilla.....	885	433	1,318	198	140	338	1,083	573	1,656
	San Sebastian.....	527	295	822	44	27	71	571	322	893
	District.....	1,617	847	2,464	289	205	494	1,906	1,052	2,958
13	Camuy.....	768	391	1,159	72	29	101	840	420	1,260
	Isabela.....	425	239	664	40	28	68	465	267	732
	District.....	1,193	630	1,823	112	57	169	1,305	687	1,992
14	Arecibo.....	848	652	1,500	297	223	520	1,145	875	2,020
	Lares.....	459	271	730	37	13	50	496	284	780
	District.....	1,307	923	2,230	334	236	570	1,641	1,159	2,800
15	Adjuntas.....	370	265	635	32	15	47	402	280	682
	Utua.....	751	457	1,208	73	30	103	824	487	1,311
	District.....	1,121	722	1,843	105	45	150	1,226	767	1,993

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS AND SPECIAL SCHOOLS—Continued.

School district.	Municipality.	White.			Colored.			Total male.	Total female.	Total enrollment.
		Male.	Fe-male.	Total.	Male.	Fe-male.	Total.			
16	Ciales	375	222	597	47	24	71	422	246	668
	Manatí	562	328	890	199	142	341	761	470	1,231
	Morovis	357	127	484	37	1	38	394	128	522
	District	1,294	677	1,971	283	167	450	1,577	844	2,421
17	Toa Alta	491	309	800	193	150	343	684	459	1,143
	Vega Baja	502	340	842	141	88	229	643	428	1,071
	District	993	649	1,642	334	238	572	1,327	877	2,214
18	Bayamón	948	723	1,671	523	420	943	1,471	1,143	2,614
	Vieques	155	147	302	123	84	207	278	231	509
	Total	22,114	14,801	36,915	7,995	5,649	13,644	30,109	20,450	50,559

(Second term, 1903-4.)

COMMON SCHOOLS, BY COLOR.

School district.	Color and municipality.	Male.			Female.			Total graded.	Total rural.	Total white.
		Graded.	Rural.	Total.	Graded.	Rural.	Total.			
1	WHITE.									
	Carolina	123	358	481	117	165	282	240	523	763
	Río Piedras	103	145	248	95	80	175	198	225	423
	San Juan	717	104	821	667	48	715	1,384	152	1,536
2	District	943	607	1,550	879	293	1,172	1,822	900	2,722
	Fajardo	267	211	478	268	125	393	535	336	871
	Naguabo	79	136	215	63	92	155	142	228	370
	Río Grande	119	373	492	108	213	321	227	586	813
3	District	465	720	1,185	439	430	869	904	1,150	2,054
	Humacao	227	198	425	239	96	335	466	294	760
	San Lorenzo	188	252	440	144	139	286	332	391	723
	Yabucoa	118	170	288	96	71	167	214	241	455
4	District	533	620	1,153	479	306	785	1,012	926	1,938
	Agua Buenas	28	107	135	37	63	100	65	170	235
	Caguas	291	271	562	267	193	460	558	464	1,022
	Cayey	235	305	540	230	148	378	465	453	918
5	District	554	683	1,237	534	404	968	1,088	1,087	2,175
	Guayama	260	210	470	206	123	329	466	333	799
	Patillas	33	176	209	33	34	67	66	210	276
	District	293	386	679	239	157	396	532	543	1,075
6	Aibonito	121	176	297	106	113	219	227	289	516
	Barros	86	451	537	48	238	286	134	689	823
	Comerio	71	242	313	54	81	135	125	323	448
	District	278	869	1,147	208	432	640	486	1,301	1,787
7	Coamo	163	371	534	116	218	334	279	589	868
	Juana Díaz	124	310	434	84	185	269	208	495	703
	Santa Isabel	78	45	123	82	42	124	160	87	247
	District	365	726	1,091	282	445	727	647	1,171	1,818
8	Ponce (district)	626	756	1,382	501	568	1,069	1,127	1,324	2,451
	Lajas	34	212	246	47	152	199	81	364	445
	Sabana Grande	162	185	347	162	124	286	324	309	633
	Yauco	193	352	545	229	226	455	422	578	1,000
9	District	389	749	1,138	438	502	940	827	1,251	2,078

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS, BY COLOR—Continued.

School district.	Color and municipality.	Male.			Female.			Total graded.	Total rural.	Total white.
		Graded.	Rural.	Total.	Graded.	Rural.	Total.			
	WHITE—continued.									
10	Cabo Rojo	158	313	471	139	196	335	297	509	896
	Maricao	62	107	169	65	48	113	127	155	282
	San German	204	294	498	173	244	417	377	538	915
	District	424	714	1,138	377	488	865	801	1,202	2,003
11	Añasco	173	246	419	168	151	319	341	397	738
	Las Marias	47	208	255	55	154	209	102	362	464
	Mayaguez	464	447	911	341	381	722	805	828	1,633
	District	684	901	1,585	564	686	1,250	1,248	1,587	2,835
12	Aguada	79	148	227	62	85	147	141	233	374
	Aguadilla	347	612	959	237	241	478	584	853	1,437
	San Sebastian	159	432	591	140	225	365	299	657	956
	District	585	1,192	1,777	439	551	990	1,024	1,743	2,767
13	Camuy	305	462	767	262	133	395	567	595	1,162
	Isabela	118	331	449	86	156	242	204	487	691
	District	423	793	1,216	348	289	637	771	1,082	1,853
14	Arecibo	329	553	882	323	333	656	652	886	1,538
	Lares	138	366	504	92	204	296	230	570	800
	District	467	919	1,386	415	537	952	882	1,456	2,338
15	Adjuntas	165	241	406	140	169	309	305	410	715
	Utua	230	610	840	187	338	525	417	948	1,365
	District	395	851	1,246	327	507	834	722	1,358	2,080
16	Ciales	112	390	502	114	197	311	226	587	813
	Manati	275	334	609	184	210	394	459	544	1,003
	Morovis	61	279	340	50	76	126	111	355	466
	District	448	1,003	1,451	348	483	831	796	1,486	2,282
17	Toa Alta	151	281	432	137	160	297	288	441	729
	Vega Baja	211	284	495	196	154	350	407	438	845
	District	362	565	927	333	314	647	695	879	1,574
18	Bayamón	286	649	935	268	463	731	554	1,112	1,666
	Vieques	62	89	151	80	57	137	142	146	288
	Total white....	8,582	13,792	22,374	7,498	7,912	15,410	16,080	21,704	37,784
	COLORED.									
1	Carolina	52	191	243	59	117	176	111	308	419
	Rio Piedras	64	99	163	32	72	104	96	171	267
	San Juan	424	114	538	459	19	478	883	133	1,016
	District	540	404	944	550	208	758	1,090	612	1,702
2	Fajardo	112	62	174	150	41	191	262	103	365
	Naguabo	17	58	75	16	49	65	33	107	140
	Rio Grande	115	263	378	123	151	274	238	414	652
	District	244	383	627	289	241	530	533	624	1,157
3	Humacao	88	60	148	59	30	89	147	90	237
	San Lorenzo	57	73	130	54	34	88	111	107	218
	Yabucoa	64	79	143	39	45	84	103	124	227
	District	209	212	421	152	109	261	361	321	682
4	Aguas Buenas	6	51	57	6	30	36	12	81	93
	Caguas	133	124	257	91	86	177	224	210	434
	Cayey	48	114	162	48	61	109	96	175	271
	District	187	289	476	145	177	322	332	466	798

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS, BY COLOR—Continued.

School district.	Municipality.	Male.			Female.			Total graded.	Total rural.	Total colored.
		Graded.	Rural.	Total.	Graded.	Rural.	Total.			
	COLORED—cont'd.									
5	Guayama	277	204	481	212	88	300	489	292	781
	Patillas	27	64	91	18	21	39	45	85	130
	District	304	268	572	230	109	339	534	377	911
6	Aibonito	36	31	67	11	17	28	47	48	95
	Barros	20	56	76	15	24	39	35	80	115
	Comerio	20	36	56	21	12	33	41	48	89
	District	76	123	199	47	53	100	123	176	299
7	Coamo	117	157	274	90	76	166	207	233	440
	Juana Diaz	56	130	186	61	63	124	117	193	310
	Santa Isabel	63	24	87	46	18	64	109	42	151
	District	236	311	547	197	157	354	433	468	901
8	Ponce	287	351	638	218	303	521	505	654	1,159
9	Lajas	4	34	38	4	21	25	8	55	63
	Sabana Grande	11	39	50	6	32	38	17	71	88
	Yauco	85	117	202	107	57	164	192	174	366
	District	100	190	290	117	110	227	217	300	517
10	Cabo Rojo	18	68	86	13	34	47	31	102	133
	Maricao	16	30	46	18	26	44	34	56	90
	San German	93	117	210	57	75	132	150	192	342
	District	127	215	342	88	135	223	215	350	565
11	Añasco	44	35	79	54	71	125	98	106	204
	Las Marias	2	48	50	7	29	36	9	77	86
	Mayaguez	159	94	253	138	84	222	297	178	475
	District	205	177	382	199	184	383	404	361	765
12	Aguada	33	26	59	19	24	43	52	50	102
	Aguadilla	68	111	179	78	76	154	146	187	333
	San Sebastian	18	19	37	13	14	27	31	33	64
	District	119	156	275	110	114	224	229	270	499
13	Camuy	34	31	65	26	4	30	60	35	95
	Isabela	12	27	39	6	30	36	18	57	75
	District	46	58	104	32	34	66	78	92	170
14	Arecibo	105	200	305	96	155	251	201	355	556
	Lares	13	15	28	12	4	16	25	19	44
	District	118	215	333	108	159	267	226	374	600
15	Adjuntas	15	13	28	5	10	15	20	23	43
	Utua	25	33	58	19	16	35	44	49	93
	District	40	46	86	24	26	50	64	72	136
16	Ciales	18	31	49	14	20	34	32	51	83
	Manati	87	98	185	77	70	147	164	168	332
	Morovis		34	34	1	1	2	1	35	36
	District	105	163	268	92	91	183	197	254	451
17	Toa Alta	104	52	156	80	66	146	184	118	302
	Vega Baja	58	68	126	44	46	90	102	114	216
	District	162	120	282	124	112	236	286	232	518
18	Bayamón	181	290	471	147	241	388	328	531	859
	Vieques	52	51	103	61	20	81	113	71	184
	Total colored ..	3,338	4,022	7,360	2,930	2,583	5,513	6,268	6,605	12,873
	Total white ..	8,582	13,792	22,374	7,498	7,912	15,410	16,080	21,704	37,784
	Grand total ...	11,920	17,814	29,734	10,428	10,495	20,923	22,348	28,309	50,657

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS, BY SEX.

School district.	Municipality.	Graded.			Rural.			Total male.	Total female.	Total enrollment.
		Male.	Female.	Total.	Male.	Female.	Total.			
1	Carolina	175	176	351	549	282	831	724	458	1,182
	Rio Piedras	167	127	294	244	152	396	411	279	690
	San Juan	1,141	1,126	2,267	218	67	285	1,359	1,193	2,552
	District	1,483	1,429	2,912	1,011	501	1,512	2,494	1,930	4,424
2	Fajardo	379	418	797	273	166	439	652	584	1,236
	Naguabo	96	79	175	194	141	335	290	220	510
	Rio Grande	234	231	465	636	364	1,000	870	595	1,465
	District	709	728	1,437	1,103	671	1,774	1,812	1,399	3,211
3	Humacao	312	298	613	258	126	384	573	424	997
	San Lorenzo	245	198	443	325	173	498	570	371	941
	Yabucoa	182	135	317	249	116	365	431	251	682
	District	742	631	1,373	832	415	1,247	1,574	1,046	2,620
4	Aguas Buenas	34	43	77	158	93	251	192	136	328
	Caguas	424	358	782	395	279	674	819	637	1,456
	Cayey	283	278	561	419	209	628	702	487	1,189
	District	741	679	1,420	972	581	1,553	1,713	1,260	2,973
5	Guayama	537	418	955	414	211	625	951	629	1,580
	Patillas	60	51	111	240	55	295	300	106	406
	District	597	469	1,066	654	266	920	1,251	735	1,986
6	Aibonito	157	117	274	207	130	337	364	247	611
	Barros	106	63	169	507	262	769	613	325	938
	Comerio	91	75	166	278	93	371	369	168	537
	District	354	255	609	992	485	1,477	1,346	740	2,086
7	Coamo	280	206	486	528	294	822	808	500	1,308
	Juana Diaz	180	145	325	440	248	688	620	393	1,013
	Santa Isabel	141	128	269	69	60	129	210	188	398
	District	601	479	1,080	1,037	602	1,639	1,638	1,081	2,719
8	Ponce	913	719	1,632	1,107	871	1,978	2,020	1,590	3,610
9	Lajas	38	51	89	246	173	419	284	224	508
	Sabana Grande	173	168	341	224	156	380	397	324	721
	Yauco	278	336	614	469	283	752	747	619	1,366
	District	489	555	1,044	939	612	1,551	1,428	1,167	2,595
10	Cabo Rojo	176	152	328	381	230	611	557	382	939
	Maricao	78	83	161	137	74	211	215	157	372
	San German	297	230	527	411	319	730	708	549	1,257
	District	551	465	1,016	929	623	1,552	1,480	1,088	2,568
11	Añasco	217	222	439	281	222	503	498	444	942
	Las Marias	49	62	111	256	183	439	305	245	550
	Mayaguez	623	479	1,102	541	465	1,006	1,164	944	2,168
	District	889	763	1,652	1,078	870	1,948	1,967	1,633	3,600
12	Aguada	112	81	193	174	109	283	286	190	476
	Aguadilla	415	315	730	723	317	1,040	1,138	632	1,770
	San Sebastian	177	153	330	451	239	690	628	392	1,020
	District	704	549	1,253	1,348	665	2,013	2,052	1,214	3,266
13	Camuy	339	288	627	493	137	630	832	425	1,257
	Isabela	130	92	222	358	186	544	488	278	766
	District	469	380	849	851	323	1,174	1,320	703	2,023
14	Arecibo	434	419	853	753	488	1,241	1,187	907	2,094
	Lares	151	104	255	381	208	589	532	312	844
	District	585	523	1,108	1,134	696	1,830	1,719	1,219	2,938

TABLE 1.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS, BY SEX—Continued.

School district.	Municipality.	Graded.			Rural.			Total male.	Total female.	Total enrollment.
		Male.	Female.	Total.	Male.	Female.	Total.			
15	Adjuntas	180	145	325	254	179	433	434	324	758
	Utua	255	206	461	643	354	997	898	560	1,458
	District	435	351	786	897	533	1,430	1,332	884	2,216
16	Ciales	130	128	258	421	217	638	551	345	896
	Manati	362	261	623	432	280	712	794	541	1,335
	Morovis	61	51	112	313	77	390	374	128	502
	District	553	440	993	1,166	574	1,740	1,719	1,014	2,733
17	Toa Alta	255	217	472	333	226	559	588	443	1,031
	Vega Baja	269	240	509	352	200	552	621	440	1,061
	District	524	457	981	685	426	1,111	1,209	883	2,092
18	Bayamón	467	415	882	939	704	1,643	1,406	1,119	2,525
	Vieques	114	141	255	140	77	217	254	218	472
	Total	11,920	10,428	22,348	17,814	10,495	28,309	29,734	20,923	50,657

SPECIAL SCHOOLS, BY COLOR.

School district.	Municipality.	Male.					Female.					Total white.	
		High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total.	High.	Industrial.	Night.	Agricultural.		Kindergarten.	Total.
	WHITE.												
1	Carolina				11		11						11
	San Juan	33	48	78		43	202	8	53	39		50	352
	District	33	48	78	11	43	213	8	53	39		50	363
2	Fajardo			25			25			8			33
	Rio Grande			26			26						26
	District			51			51			8			59
3	Humacao			18	27		45				4		49
	San Lorenzo			30	18		48				12		60
	District			48	45		93				16		109
4	Cayey			17			17			12			29
5	Guayama			42	4		46			7	1		54
6	Barros				50		50				21		71
7	Coamo			7			7			30			37
	Juana Diaz			15			15			8			23
	District			22			22			38			60
8	Ponce	18	61	65	10	26	180	9	30	51	5	27	302
9	Lajas				42		42				9		51
	Sabana Grande				17		17				22		39
	District				59		59				31		90

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

SPECIAL SCHOOLS, BY COLOR—Continued.

School district.	Municipality.	Male.					Female.					Total white.		
		High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total.	High.	Industrial.	Night.	Agricultural.		Kindergarten.	Total.
WHITE—continued.														
10	Cabo Rojo				32		32				25		25	57
	San Germán			31			31							31
	District			31	32		63				25		25	88
11	Añasco			43			43							43
	Mayaguez	6	50	36			92	11	64				75	167
	District	6	50	79			135	11	64				75	210
12	Aguadilla			18			18			13			13	31
	San Sebastian			25			25			5			5	30
	District			43			43			18			18	61
13	Camuy				43		43							43
14	Arecibo		49				49		61				61	110
	Lares			31			31			12			12	43
	District		49	31			80		61	12			73	153
15	Etuado			28	31		59			15	25		40	99
16	Manatí			16			16			15			15	31
17	Toa Alta				42		42				14		14	56
18	Bayamón				18		18				13		13	31
	Total white	57	208	551	345	69	1,230	28	208	215	151	77	679	1,909
COLORED.														
1	Carolina				29		29							29
	San Juan	4	10	29		18	61	3	8	8		23	42	103
	District	4	10	29	29	18	90	3	8	8		23	42	132
2	Fajardo			18			18			5			5	23
	Rio Grande			31			31							31
	District			49			49			5			5	54
3	Humacao			25	8		33				5		5	38
	San Lorenzo			17	8		25			1	10		11	36
	District			42	16		58			1	15		16	74
4	Cayey			21			21			7			7	28
5	Guayama			35	29		64			3	10		13	77
6	Barros				6		6				1		1	7
7	Coamo			1			1			7			7	8
	Juana Díaz			23			23			3			3	26
	District			24			24			10			10	34
8	Ponce		8	43	13	5	69		11	40	5	2	58	127
9	Lajas				6		6				3		3	3
	Sabana Grande										6		6	12
	District				6		6				9		9	15
10	Cabo Rojo				4		4				1		1	5
	San Germán			22			22							22
	District			22	4		26				1		1	27

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

SPECIAL SCHOOLS, BY COLOR—Continued.

School district.	Municipality.	Male.					Female.					Total colored.		
		High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total.	High.	Industrial.	Night.	Agricultural.		Kindergarten.	Total.
	COLORED—continued.													
11	Añasco.....			18			18							18
	Mayaguez.....	2	14	30			46	2	23				25	71
	District	2	14	48			64	2	23				25	89
12	Aguadilla.....			30			30			7			7	37
	San Sebastian.....			13			13			4			4	17
	District			43			43			11			11	54
13	Camuy.....				1		1							1
14	Arecibo.....		5				5		20				20	25
	Lares.....			5			5			3			3	8
	District		5	5			10		20	3			23	33
15	Utua.....			13	3		16			1	1		2	18
16	Manati.....			13			13			5			5	18
17	Toa Alta.....				7		7				2		2	9
18	Bayamón.....				12		12				12		12	24
	Total colored	6	37	387	126	23	579	5	62	94	56	25	242	821
	Total white	57	208	551	345	69	1,230	28	208	215	151	77	679	1,909
	Grand total	63	245	938	471	92	1,809	33	270	309	207	102	921	2,730

SPECIAL SCHOOLS, BY SEX.

School district.	Municipality.	High.			Industrial.			Night.			Agricultural.			Kindergarten.			Total male.	Total female.	Total enrollment.
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.			
1	Carolina.....	37	11	48	58	61	119	107	47	154	40		40	61	73	134	40		40
	San Juan.....																263	192	455
	District.....	37	11	48	58	61	119	107	47	154	40		40	61	73	134	303	192	495
2	Fajardo.....							43	13	56							43	13	56
	Rio Grande.....							57		57							57		57
	District.....							100	13	113							100	13	113
3	Humacao.....							43		43	35	9	44				78	9	87
	San Lorenzo.....							47	1	48	26	22	48				73	23	96
	District.....							90	1	91	61	31	92				151	32	183
4	Cayey.....							38	19	57							38	19	57
5	Guayama.....							77	10	87	33	11	44				110	21	131
6	Barros.....										56	22	78				56	22	78
7	Coamo.....							8	37	45							8	37	45
	Juana Diaz.....							38	11	49							38	11	49
	District.....							46	48	94							46	48	94
8	Ponce.....	18	9	27	69	41	110	108	91	199	23	10	33	31	29	60	249	180	429

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

SPECIAL SCHOOLS, BY SEX—Continued.

School district.	Municipality.	High.			Industrial.			Night.			Agricultural.			Kindergarten.			Total male.	Total female.	Total enrollment.
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Total male.	Total female.	Total enrollment.
9	Lajas										42	12	54				42	12	54
	Sabana Grande										23	28	51				23	28	51
	District										65	40	105				65	40	105
10	Cabo Rojo										36	26	62				36	26	62
	San German							53		53							53		53
	District							53		53	36	26	62				89	26	115
11	Añasco							61		61							61		61
	Mayaguez	8	13	21	64	87	151	66		66							138	100	238
	District	8	13	21	64	87	151	127		127							199	100	299
12	Aguadilla							48	20	68							48	20	68
	San Sebastian							38	9	47							38	9	47
	District							86	29	115							86	29	115
13	Camuy										44		44				44		44
14	Arecibo				54	81	135										54	81	135
	Lares							36	15	51							36	15	51
	District				54	81	135	36	15	51							90	96	186
15	Utua							41	16	57	34	26	60				75	42	117
16	Manati							29	20	49							29	20	49
17	Toa Alta										49	16	65				49	16	65
18	Bayamón										30	25	55				30	25	55
Total		63	33	96	245	270	515	938	309	1,247	471	207	678	92	102	194	1,809	921	2,730

SPECIAL SCHOOLS, BY COLOR.

School district.	Municipality.	High.			Industrial.			Night.			Agricultural.			Kindergarten.			Total white.	Total colored.	Total enrollment.
		White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	Total white.	Total colored.	Total enrollment.
1	Carolina										11	29	40				11	29	40
	San Juan	41	7	48	101	18	119	117	37	154				93	41	134	352	103	455
	District	41	7	48	101	18	119	117	37	154	11	29	40	93	41	134	363	132	495
2	Fajardo							33	23	56							33	23	56
	Rio Grande							26	31	57							26	31	57
	District							59	54	113							59	54	113
3	Humacao							18	25	43	31	13	44				49	38	87
	San Lorenzo							30	18	48	30	18	48				60	36	96
	District							48	43	91	61	31	92				109	74	183
4	Cayey							29	28	57							29	28	57
5	Guayama							49	38	87	5	39	44				54	77	131
6	Barros										71	7	78				71	7	78
7	Coamo							37	8	45							37	8	45
	Juana Diaz							23	26	49							23	26	49
	District							60	34	94							60	34	94
8	Ponce	27		27	91	19	110	116	83	199	15	18	33	53	7	60	302	127	429

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

SPECIAL SCHOOLS, BY COLOR—Continued.

School district.	Municipality.	High.			Industrial.			Night.			Agricultural.			Kindergarten.			Total white.	Total colored.	Total enrollment.
		White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.			
9	Lajas										51	3	54				51	3	54
	Sabana Grande										39	12	51				39	12	51
	District										90	15	105				90	15	105
10	Cabo Rojo							31	22	53	57	5	62				57	5	62
	San Germán																31	22	53
	District							31	22	53	57	5	62				88	27	115
11	Añasco							43	18	61							43	18	61
	Mayaguez	17	4	21	114	37	151	36	30	66							167	71	238
	District	17	4	21	114	37	151	79	48	127							210	89	299
12	Aguadilla							31	37	68							31	37	68
	San Sebastian							30	17	47							30	17	47
	District							61	54	115							61	54	115
13	Camuy										43	1	44				43	1	44
14	Arecibo				110	25	135										110	25	135
	Lares							43	8	51							43	8	51
	District				110	25	135	43	8	51							153	33	186
15	Utua							43	14	57	56	4	60				99	18	117
16	Manatí							31	18	49							31	18	49
17	Toa Alta										56	9	65				56	9	65
18	Bayamón										31	24	55				31	24	55
	Total	85	11	96	416	99	515	766	481	1,247	496	182	678	146	48	194	1,909	821	2,730

COMMON SCHOOLS AND SPECIAL SCHOOLS.

School district.	Municipality.	White.			Colored.			Total male.	Total female.	Total enrollment.
		Male.	Female.	Total.	Male.	Female.	Total.			
1	Carolina	492	282	774	272	176	448	764	458	1,222
	Río Piedras	248	175	423	163	104	267	411	279	690
	San Juan	1,023	865	1,888	599	520	1,119	1,622	1,385	3,007
	District	1,763	1,322	3,085	1,034	800	1,834	2,797	2,122	4,919
2	Fajardo	503	401	904	192	196	388	695	597	1,292
	Naguabo	215	155	370	75	65	140	290	220	510
	Río Grande	518	321	839	409	274	683	927	595	1,522
	District	1,236	877	2,113	676	535	1,211	1,912	1,412	3,324
3	Humacao	470	339	809	181	94	275	651	433	1,084
	San Lorenzo	488	295	783	155	99	254	643	394	1,037
	Yabucoa	288	167	455	143	84	227	431	251	682
	District	1,246	801	2,047	479	277	756	1,725	1,078	2,803
4	Agua Buenas	135	100	235	57	36	93	192	136	328
	Caguas	562	460	1,022	257	177	434	819	637	1,456
	Cayey	557	390	947	183	116	299	740	506	1,246
	District	1,254	950	2,204	497	329	826	1,751	1,279	3,030
5	Guayama	516	337	853	545	313	858	1,061	650	1,711
	Patillas	209	67	276	91	39	130	300	106	406
	District	725	404	1,129	636	352	988	1,361	756	2,117

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS AND SPECIAL SCHOOLS—Continued.

School district.	Municipality.	White.			Colored.			Total male.	Total female.	Total enrollment.
		Male.	Female.	Total.	Male.	Female.	Total.			
6	Aibonito	297	219	516	67	28	95	364	247	611
	Barros	587	307	894	82	40	122	669	347	1,016
	Comerio	313	135	448	56	33	89	369	168	537
	District	1,197	661	1,858	205	101	306	1,402	762	2,164
7	Coamo	541	364	905	275	173	448	816	537	1,353
	Juana Díaz	449	277	726	209	127	336	658	404	1,062
	Santa Isabel	123	124	247	87	64	151	210	188	398
	District	1,113	765	1,878	571	364	935	1,684	1,129	2,813
8	Ponce	1,562	1,191	2,753	707	579	1,286	2,269	1,770	4,039
9	Lajas	288	208	496	38	28	66	326	236	562
	Sabana Grande	364	308	672	56	44	100	420	352	772
	Yauco	545	455	1,000	202	164	366	747	619	1,366
	District	1,197	971	2,168	296	236	532	1,493	1,207	2,700
10	Cabo Rojo	503	360	863	90	48	138	593	408	1,001
	Maricao	169	113	282	46	44	90	215	157	372
	San Germán	529	417	946	232	132	364	761	549	1,310
	District	1,201	890	2,091	368	224	592	1,569	1,114	2,683
11	Añasco	462	319	781	97	125	222	559	444	1,003
	Las Marias	255	209	464	50	36	86	305	245	550
	Mayaguez	1,003	797	1,800	299	247	546	1,302	1,044	2,346
	District	1,720	1,325	3,045	446	408	854	2,166	1,733	3,899
12	Aguada	227	147	374	59	43	102	286	190	476
	Aguadilla	977	491	1,468	209	161	370	1,186	652	1,838
	San Sebastian	616	370	986	50	31	81	666	401	1,067
	District	1,820	1,008	2,828	318	235	553	2,138	1,243	3,381
13	Camuy	810	395	1,205	66	30	96	876	425	1,301
	Isabela	449	242	691	39	36	75	488	278	766
	District	1,259	637	1,896	105	66	171	1,364	703	2,067
14	Arecibo	931	717	1,648	310	271	581	1,241	988	2,229
	Lares	535	308	843	33	19	52	568	327	895
	District	1,466	1,025	2,491	343	290	633	1,809	1,315	3,124
15	Adjuntas	406	309	715	28	15	43	434	324	758
	Utüado	899	565	1,464	74	37	111	973	602	1,575
	District	1,305	874	2,179	102	52	154	1,407	926	2,333
16	Ciales	502	311	813	49	34	83	551	345	896
	Manatí	625	409	1,034	198	152	350	823	561	1,384
	Morovis	340	126	466	34	2	36	374	128	502
	District	1,467	846	2,313	281	188	469	1,748	1,034	2,782
17	Toa Alta	474	311	785	163	148	311	637	459	1,096
	Vega Baja	495	350	845	126	90	216	621	440	1,061
	District	969	661	1,630	289	238	527	1,258	899	2,157
18	Bayamón	953	744	1,697	483	400	883	1,436	1,144	2,580
	Vieques	151	137	288	103	81	184	254	218	472
	Total	23,604	16,089	39,693	7,939	5,755	13,694	31,543	21,844	53,387

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—*
Continued.

(Third term, 1903-4.)

COMMON SCHOOLS, BY COLOR.

School district.	Municipality.	Male.			Female.			Total graded.	Total rural.	Total white.
		Graded.	Rural.	Total.	Graded.	Rural.	Total.			
1	WHITE.									
	Carolina	120	332	452	101	152	253	221	484	705
	Rio Piedras	94	145	239	79	77	156	173	222	395
	San Juan	688	110	798	599	41	640	1,287	151	1,438
	District	902	587	1,489	779	270	1,049	1,681	857	2,538
2	Fajardo	245	200	445	250	127	377	495	327	822
	Naguabo	85	128	213	71	87	158	156	215	371
	Rio Grande	99	372	471	115	207	322	214	579	793
	District	429	700	1,129	436	421	857	865	1,121	1,986
	Humacao	201	184	385	207	92	299	408	276	684
3	San Lorenzo	164	247	411	142	123	265	306	370	676
	Yabucoa	101	176	277	92	78	170	193	254	447
	District	466	607	1,073	441	293	734	907	900	1,807
	Agua8 Buenas	27	109	136	38	69	107	65	178	243
	Caguas	281	291	572	259	199	458	540	490	1,030
4	Cayey	209	320	529	231	140	371	440	460	900
	District	517	720	1,237	528	408	936	1,045	1,128	2,173
	Guayama	250	202	452	196	116	312	446	318	764
	Patillas	30	171	201	31	34	65	61	205	266
	District	280	373	653	227	150	377	507	523	1,030
6	Aibonito	115	192	307	106	129	235	221	321	542
	Barros	86	445	531	49	241	290	135	686	821
	Comerio	70	236	306	53	82	135	123	318	441
	District	271	873	1,144	208	452	660	479	1,325	1,804
	Coamo	145	371	516	96	216	312	241	587	828
7	Juana Diaz	120	300	420	87	167	254	207	467	674
	Santa Isabel	66	58	124	62	42	104	128	100	228
	District	331	729	1,060	245	425	670	576	1,154	1,730
	Ponce.....	640	823	1,463	511	569	1,080	1,151	1,392	2,543
	Lajas	35	209	244	42	163	205	77	372	449
9	Sabana Grande	156	155	311	153	109	262	309	264	573
	Yauco	206	318	524	240	207	447	446	525	971
	District	397	682	1,079	435	479	914	832	1,161	1,993
	Cabo Rojo	136	312	448	121	177	298	257	489	746
	Maricao	55	92	147	52	43	95	107	135	242
10	San Germán	192	233	425	188	274	462	380	507	887
	District	383	637	1,020	361	494	855	744	1,131	1,875
	Añasco.....	166	224	390	152	142	294	318	366	684
	Las Marias	43	170	213	48	131	179	91	301	392
	Mayaguez.....	396	421	817	302	338	640	698	759	1,457
11	District	605	815	1,420	502	611	1,113	1,107	1,426	2,533
	Aguada	82	154	236	65	95	160	147	249	396
	Aguadilla	362	247	609	252	613	865	614	860	1,474
	San Sebastian	166	455	621	145	235	380	311	690	1,001
	District	610	856	1,466	462	943	1,405	1,072	1,799	2,871
13	Camuy	271	462	733	228	139	367	499	601	1,100
	Isabela	100	323	423	81	158	239	181	481	662
	District	371	785	1,156	309	297	606	680	1,082	1,762

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS, BY COLOR—Continued.

School district.	Municipality.	Male.			Female.			Total graded.	Total rural.	Total white.
		Graded.	Rural.	Total.	Graded.	Rural.	Total.			
14	WHITE—continued.									
	Arecibo	315	504	819	321	318	639	636	822	1,458
	Lares	130	313	443	92	192	284	222	505	727
	District	445	817	1,262	413	510	923	858	1,327	2,185
15	Adjuntas	154	234	388	135	163	298	289	397	686
	Utuado	257	570	827	228	335	563	485	905	1,390
	District	411	804	1,215	363	498	861	774	1,302	2,076
16	Ciales	108	384	492	102	179	281	210	563	773
	Manati	244	314	558	175	216	391	419	530	949
	Morovis	61	278	339	49	78	127	110	356	466
	District	413	976	1,389	326	473	799	739	1,449	2,188
17	Toa Alta	141	266	407	135	147	282	276	413	689
	Vega Baja	191	273	464	160	149	309	351	422	773
	District	332	539	871	295	296	591	627	835	1,462
18	Bayamón	277	673	950	261	490	751	538	1,163	1,701
	Vieques	58	92	150	78	62	140	136	154	290
	Total white ...	8,138	13,088	21,226	7,180	8,141	15,321	15,318	21,229	36,547
1	COLORED.									
	Carolina	45	182	227	62	103	165	107	285	392
	Rio Piedras	49	82	131	34	65	99	83	147	230
	San Juan	388	100	488	435	17	452	823	117	940
2	District	482	364	846	531	185	716	1,013	549	1,562
	Fajardo	110	59	169	142	45	187	252	104	356
	Naguabo	16	57	73	17	47	64	33	104	137
	Rio Grande	107	251	358	122	139	261	229	390	619
3	District	233	367	600	281	231	512	514	598	1,112
	Humacao	70	60	130	51	30	81	121	90	211
	San Lorenzo	49	67	116	52	20	72	101	87	188
	Yabucoa	60	79	139	36	44	80	96	123	219
4	District	179	206	385	139	94	233	318	300	618
	Aguas Buenas	6	50	56	6	29	35	12	79	91
	Caguas	120	140	260	82	95	177	202	235	437
	Cayey	44	107	151	46	43	89	90	150	240
5	District	170	297	467	134	167	301	304	464	768
	Guayama	268	210	478	196	90	286	464	300	764
	Patillas	26	64	90	18	22	40	44	86	130
	District	294	274	568	214	112	326	508	386	894
6	Aibonito	35	32	67	10	16	26	45	48	93
	Barros	22	58	80	16	23	39	38	81	119
	Comerio	20	36	56	21	12	33	41	48	89
	District	77	126	203	47	51	98	124	177	301
7	Coamo	90	154	244	83	77	160	173	231	404
	Juana Diaz	54	138	192	58	62	120	112	200	312
	Santa Isabel	50	26	76	37	19	56	87	45	132
	District	194	318	512	178	158	336	372	476	848
8	Ponce	313	353	666	203	280	483	516	633	1,149

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS, BY COLOR—Continued.

School district.	Municipality.	Male.			Female.			Total graded.	Total rural.	Total colored.
		Graded.	Rural.	Total.	Graded.	Rural.	Total.			
	COLORED—cont'd.									
9	Lajas	1	31	32	5	28	33	6	59	65
	Sabana Grande	11	37	48	6	26	32	17	63	80
	Yauco	93	90	183	111	45	156	204	135	339
	District	105	158	263	122	99	221	227	257	484
10	Cabo Rojo	14	73	87	11	36	47	25	109	134
	Maricao	14	30	44	17	24	41	31	54	85
	San Germán	65	100	165	52	91	143	117	191	308
	District	93	203	296	80	151	231	173	354	527
11	Añasco	41	33	74	46	60	106	87	93	180
	Las Marias	2	32	34	5	22	27	7	54	61
	Mayaguez	147	89	236	134	79	213	281	168	449
	District	190	154	344	185	161	346	375	315	690
12	Aguada	33	26	59	19	25	44	52	51	103
	Agüadilla	71	135	206	82	87	169	153	222	375
	San Sebastián	18	19	37	14	15	29	32	34	66
	District	122	180	302	115	127	242	237	307	544
13	Camuy	31	28	59	25	6	31	56	34	90
	Isabela	12	27	39	6	25	31	18	52	70
	District	43	55	98	31	31	62	74	86	160
14	Arecibo	100	168	268	93	153	246	193	321	514
	Lares	12	11	23	12	4	16	24	15	39
	District	112	179	291	105	157	262	217	336	553
15	Adjuntas	16	12	28	5	9	14	21	21	42
	Utuado	26	30	56	27	15	42	53	45	98
	District	42	42	84	32	24	56	74	66	140
16	Ciales	17	33	50	15	17	32	32	50	82
	Manati	71	89	160	62	64	126	133	153	286
	Morovis .....	.....	33	33	1	1	2	1	34	35
	District	88	155	243	78	82	160	166	237	403
17	Toa Alta	102	43	145	77	58	135	179	101	280
	Vega Baja	50	64	114	60	45	105	110	109	219
	District	152	107	259	137	103	240	289	210	499
18	Bayamón	159	301	460	136	245	381	295	546	841
	Vieques	38	45	83	48	17	65	86	62	148
	Total, colored ..	3,086	3,884	6,970	2,796	2,475	5,271	5,882	6,359	12,241
	Total, white ..	8,138	13,088	21,226	7,180	8,141	15,321	15,318	21,219	36,547
	Grand total ...	11,224	16,972	28,196	9,976	10,616	20,592	21,200	27,588	48,788

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS, BY SEX.

School district.	Municipality.	Graded.			Rural.			Total male.	Total female.	Total enrollment.
		Male.	Female.	Total enrollment.	Male.	Female.	Total enrollment.			
1	Carolina	165	163	328	514	255	769	679	418	1,097
	Rio Piedras	143	113	256	227	142	369	370	255	625
	San Juan	1,076	1,034	2,110	210	58	268	1,286	1,092	2,378
	District	1,384	1,310	2,694	951	455	1,406	2,335	1,765	4,100
2	Fajardo	355	392	747	259	172	431	614	564	1,178
	Naguabo	101	88	189	185	134	319	286	222	508
	Rio Grande	206	237	443	623	346	969	829	583	1,412
	District	662	717	1,379	1,067	652	1,719	1,729	1,369	3,098
3	Humacao	271	258	529	244	122	366	515	380	895
	San Lorenzo	213	194	407	314	143	457	527	337	864
	Yabucoa	161	128	289	255	122	377	416	250	666
	District	645	580	1,225	813	387	1,200	1,453	967	2,425
4	Aguas Buenas	33	44	77	159	98	257	192	142	334
	Caguas	401	341	742	431	294	725	832	635	1,467
	Cayey	253	277	530	427	183	610	680	460	1,140
	District	687	662	1,349	1,017	575	1,592	1,704	1,237	2,941
5	Guayama	518	392	910	412	206	618	930	598	1,528
	Patillas	56	49	105	235	56	291	291	105	396
	District	574	441	1,015	647	262	909	1,221	703	1,924
6	Aibonito	150	116	266	224	145	369	374	261	635
	Barros	108	65	173	503	264	767	611	329	940
	Comerio	90	74	164	272	94	366	362	168	530
	District	348	255	603	999	503	1,502	1,347	758	2,105
7	Coamo	235	179	414	525	293	818	760	472	1,232
	Juana Diaz	174	145	319	438	229	667	612	374	986
	Santa Isabel	116	99	215	84	61	145	200	160	360
	District	525	423	948	1,047	583	1,630	1,572	1,006	2,578
8	Ponce	953	714	1,667	1,176	849	2,025	2,129	1,563	3,692
9	Lajas	36	47	83	240	191	431	276	238	514
	Sabana Grande	167	159	326	192	135	327	359	294	653
	Yauco	299	351	650	408	252	660	707	603	1,310
	District	502	557	1,059	840	578	1,418	1,342	1,135	2,477
10	Cabo Rojo	150	132	282	385	213	598	535	345	880
	Maricao	69	65	138	122	67	189	191	136	327
	San Germán	257	240	497	333	365	698	590	605	1,195
	District	476	441	917	840	645	1,485	1,316	1,086	2,402
11	Añasco	207	198	405	257	202	459	464	400	864
	Las Marias	45	53	98	202	153	355	247	206	453
	Mayaguez	543	436	979	510	417	927	1,053	853	1,906
	District	795	687	1,482	969	772	1,741	1,764	1,459	3,223
12	Aguada	115	84	199	180	120	300	295	204	499
	Aguadilla	433	334	767	382	700	1,082	815	1,034	1,849
	San Sebastian	184	159	343	474	250	724	658	409	1,067
	District	732	577	1,309	1,036	1,070	2,106	1,768	1,647	3,415
13	Camuy	302	253	555	490	145	635	792	398	1,190
	Isabell	112	87	199	350	183	533	462	270	732
	District	414	340	754	840	328	1,168	1,254	668	1,922

TABLE I.—Distribution (pupils) by sex and color—Common schools and special schools—Continued.

COMMON SCHOOLS, BY SEX—Continued.

School district.	Municipality.	Graded.			Rural.			Total male.	Total female.	Total enrollment.
		Male.	Female.	Total enrollment.	Male.	Female.	Total enrollment.			
14	Arecibo	415	414	829	672	471	1,143	1,087	885	1,976
	Lares	142	104	246	324	196	520	466	300	762
	District	557	518	1,075	996	667	1,663	1,553	1,185	2,738
15	Adjuntas	170	140	310	246	172	418	416	312	728
	Utua	283	255	538	600	350	950	883	605	1,488
	District	453	395	848	846	522	1,368	1,299	917	2,216
16	Ciales	125	117	242	417	196	613	542	313	855
	Manati	315	237	552	403	280	683	718	517	1,235
	Morovis	61	50	111	311	79	390	372	129	501
	District	501	404	905	1,131	555	1,686	1,632	959	2,591
17	Toa Alta	243	212	455	309	205	514	552	417	979
	Vega Baja	241	220	461	337	194	531	578	414	992
	District	484	432	916	646	399	1,045	1,130	831	1,961
18	Bayamón	436	397	833	974	735	1,709	1,410	1,132	2,542
	Vieques	96	126	222	137	79	216	233	205	438
	Total	11,224	9,976	21,200	16,972	10,616	27,588	28,196	20,592	48,788

SPECIAL SCHOOLS, BY COLOR.

School district.	Municipality.	Male.					Female.					Total white.		
		High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total.	High.	Industrial.	Night.	Agricultural.		Kindergarten.	Total.
	WHITE.													
1	Carolina				14		14							14
	San Juan	33	42	70		45	190	6	50	30		47	133	323
	District	33	42	70	14	45	204	6	50	30		47	133	337
2	Fajardo			28			28			8			8	36
	Rio Grande			24			24							24
	District			52			52			8			8	60
3	Humacao			17	28		45				5		5	50
	San Lorenzo			30	19		49				12		12	61
	District			47	47		94				17		17	111
4	Cayey			24			24			5			5	29
5	Guayama			34	4		38			6	1		7	45
6	Barros				48		48				19		19	67
7	Coamo			4			4			28			28	32
	Juana Diaz			18			18			10			10	28
	District			22			22			38			38	60
8	Ponce	17	60	53	8	28	166	9	32	38	4	25	108	274
9	Lajas				44		44							44
	Sabana Grande				16		16				21		21	37
	District				60		60				21		21	81

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

SPECIAL SCHOOLS, BY COLOR—Continued.

School district.	Municipality.	Male.					Female.					Total white.		
		High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total.	High.	Industrial.	Night.	Agricultural.		Kindergarten.	Total.
	WHITE—continued.													
10	Cabo Rojo				32		32				22		22	54
	San Germán			28			28							28
	District			28	32		60				22		22	82
11	Añasco			47			47							47
	Mayaguez	5	47	32			84	8	67				75	159
	District	5	47	79			131	8	67				75	206
12	Aguadilla			25			25			13			13	38
	San Sebastian			28			28			6			6	34
	District			53			53			19			19	72
13	Camuy				38		38							38
14	Arecibo		46				46	49					49	95
	Lares			37			37		13				13	50
	District		46	37			83	49	13				62	145
15	Utua			12	29		41			16	27		43	84
16	Manatí			10			10			13			13	23
17	Toa Alta				39		39				15		15	54
18	Bayamón				16		16				12		12	28
	Total white	55	195	521	335	73	1,179	23	198	186	138	72	617	1,796
	COLORED.													
1	Carolina				33		33							33
	San Juan	3	14	37		17	71	3	9	12		22	46	117
	District	3	14	37	33	17	104	3	9	12		22	46	150
2	Fajardo			19			19			6			6	25
	Río Grande			26			26							26
	District			45			45			6			6	51
3	Humacao			19	8		27				5		5	32
	San Lorenzo			22	9		31			1	10		11	42
	District			41	17		58			1	15		16	74
4	Cayey			12			12			6			6	18
5	Guayama			32	30		62			4	11		15	77
6	Barros				6		6				1		1	7
7	Coamo									2			2	2
	Juana Díaz			21			21			4			4	25
	District			21			21			6			6	27
8	Ponce		9	44	12	6	71	11	36	5	1	53	124	
9	Lajas				3		3							3
	Sabana Grande				5		5				6		6	11
	District				8		8				6		6	14
10	San Germán			17			17							17
11	Añasco			19			19							19
	Mayaguez	1	12	25			38	2	17				19	57
	District	1	12	44			57	2	17				19	76

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

SPECIAL SCHOOLS, BY COLOR—Continued.

School district.	Municipality.	Male.					Female.					Total colored.		
		High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total.	High.	Industrial.	Night.	Agricultural.		Kindergarten.	Total.
	COLORED—continued.													
12	Aguadilla			35			35			7			7	42
	San Sebastian			14			14			6			6	20
	District			49			49			13			13	62
13	Camuy				1		1							1
14	Arecibo		4				4	17					17	21
	Lares			6			6			4			4	10
	District		4	6			10	17	4				21	31
15	Utua			11	3		14			3	1		4	18
16	Manati			7			7			5			5	12
17	Toa Alta				6		6				1		1	7
18	Bayamón				9		9				14		14	23
	Total colored ...	4	39	366	125	23	557	5	54	96	54	23	232	789
	Total white	55	195	521	335	73	1,179	23	198	186	138	72	617	1,796
	Grand total	59	234	887	460	96	1,736	28	252	282	192	95	849	2,585

SPECIAL SCHOOLS, BY SEX.

School district.	Municipality.	High.			Industrial.			Night.			Agricultural.			Kindergarten.			Total male.	Total female.	Total enrollment.
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.			
1	Carolina	36	9	45	56	59	115	107	42	149	47		47	62	69	131	47	179	440
	San Juan	36	9	45	56	59	115	107	42	149	47		47	62	69	131	47	179	440
	District	36	9	45	56	59	115	107	42	149	47		47	62	69	131	308	179	487
2	Fajardo							47	14	61							47	14	61
	Rio Grande							50		50							50		50
	District							97	14	111							97	14	111
3	Humacao							36		36	36	10	46				72	10	82
	San Lorenzo							52	1	53	28	22	50				80	23	103
	District							88	1	89	64	32	96				152	33	185
4	Cayey							36	11	47							36	11	47
5	Guayama							66	10	76	34	12	46				100	22	122
6	Barros										54	20	74				54	20	74
7	Coamo							4	30	34							4	30	34
	Juana Diaz							39	14	53							39	14	53
	District							43	44	87							43	44	87
8	Ponce	17	9	26	69	43	112	97	74	171	20	9	29	34	26	60	237	161	398
9	Lajas										47		47				47		47
	Sabana Grande										21	27	48				21	27	48
	District										68	27	95				68	27	95
10	Cabo Rojo										32	22	54				32	22	54
	San Germán							45		45							45		45
	District							45		45	32	22	54				77	22	99

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

SPECIAL SCHOOLS, BY SEX—Continued.

School district.	Municipality.	High.			Industrial.			Night.			Agricul- tural.			Kindergar- ten.			Total male.	Total female.	Total enroll- ment.
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.			
11	Añasco	6	10	16	59	84	143	66	57	123	66	57	123				66	122	66
	Mayaguez																122	94	216
	District	6	10	16	59	84	143	123		123							188	94	282
12	Aguadilla							60	20	80							60	20	80
	San Sebastian							42	12	54							42	12	54
	District							102	32	134							102	32	134
13	Camuy										39		39				39		39
	Arecibo				50	66	116										50	66	116
	Lares							43	17	60							43	17	60
14	District				50	66	116	43	17	60							93	83	176
	Utua							23	19	42	32	28	60				55	47	102
	Manati							17	18	35							17	18	35
17	Toa Alta										45	16	61				45	16	61
	Bayamon										25	26	51				25	26	51
	District																		
Total		59	28	87	234	252	486	887	282	1,169	460	192	652	96	95	191	1,736	489	2,585

SPECIAL SCHOOLS, BY COLOR.

School district.	Municipality.	High.			Industrial.			Night.			Agricul- tural.			Kindergar- ten.			Total white.	Total colored.	Total enroll- ment.
		White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.			
1	Carolina										14	33	47				14	33	47
	San Juan	39	6	45	92	23	115	100	49	149				92	39	131	323	117	440
	District	39	6	45	92	23	115	100	49	149	14	33	47	92	39	131	337	150	487
2	Fajardo							36	25	61							36	25	61
	Rio Grande							24	26	50							24	26	50
	District							60	51	111							60	51	111
3	Humacas							17	19	36	33	13	46				50	32	82
	San Lorenzo							30	23	53	31	19	50				61	42	103
	District							47	42	89	64	32	96				111	74	185
4	Cayey							29	18	47							29	18	47
	Guayama							40	36	76	5	41	46				45	77	122
	Barros										67	7	74				67	7	74
7	Coamo							32	2	34							32	2	34
	Juana Diaz							28	25	53							28	25	53
	District							60	27	87							60	27	87
8	Ponce	26		26	92	20	112	91	80	171	12	17	29	53	7	60	274	124	398
	Lajas										44	3	47				44	3	47
	Sabana Grande										37	11	48				37	11	48
9	District										81	14	95				81	14	95
10	Cabo Rojo										54		54				54		54
	San Germán							28	17	45							28	17	45
	District							28	17	45	54		54				82	17	99

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

SPECIAL SCHOOLS, BY COLOR—Continued.

School district.	Municipality.	High.			Industrial.			Night.			Agricul- tural.			Kindergar- ten.			Total white.	Total colored.	Total enroll- ment.
		White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.			
11	Añasco							47	19	66							47	19	66
	Mayaguez	13	3	16	114	29	143	32	25	57							159	57	216
	District	13	3	16	114	29	143	79	44	123							206	76	282
12	Aguadilla							38	42	80							38	42	80
	San Sebastian							34	20	54							34	20	54
	District							72	62	134							72	62	134
13	Camuy										38	1	39				38	1	39
14	Arecibo				95	21	116										95	21	116
	Lares							50	10	60							50	10	60
	District				95	21	116	50	10	60							145	31	176
15	Utuado							28	14	42	56	4	60				84	18	102
16	Manati							23	12	35							23	12	35
17	Toa Alta										54	7	61				54	7	61
18	Bayamón										28	23	51				28	23	51
	Total	78	9	87	393	93	486	707	462	1,169	473	179	652	145	46	191	1,796	789	2,585

COMMON SCHOOLS AND SPECIAL SCHOOLS.

School district.	Municipality.	White.			Colored.			Total male.	Total female.	Total enrollment.
		Male.	Fe- male.	Total.	Male.	Fe- male.	Total.			
1	Carolina	466	253	719	260	165	425	726	418	1,144
	Rio Piedras	239	156	395	131	99	230	370	255	625
	San Juan	988	773	1,761	559	498	1,057	1,547	1,271	2,818
	District	1,693	1,182	2,875	950	762	1,712	2,643	1,944	4,587
2	Fajardo	473	385	858	188	193	381	661	578	1,239
	Naguabo	213	158	371	73	64	137	286	222	508
	Rio Grande	495	322	817	384	261	645	879	583	1,462
	District	1,181	865	2,046	645	518	1,163	1,826	1,383	3,209
3	Humacao	430	304	734	157	86	243	587	390	977
	San Lorenzo	460	277	737	147	83	230	607	360	967
	Yabucoa	277	170	447	139	80	219	416	250	666
	District	1,167	751	1,918	443	249	692	1,610	1,000	2,610
4	Agua Buenas	136	107	243	56	35	91	192	142	334
	Caguas	572	458	1,030	260	177	437	882	635	1,467
	Cayey	553	376	929	163	95	258	716	471	1,187
	District	1,261	941	2,202	479	307	786	1,740	1,248	2,988
5	Guayama	490	319	809	540	301	841	1,030	620	1,650
	Patillas	201	65	266	90	40	130	291	105	396
	District	691	384	1,075	630	341	971	1,321	725	2,046
6	Aibonito	307	235	542	67	26	93	374	261	635
	Barros	579	309	888	86	40	126	665	349	1,014
	Comerio	306	135	441	56	33	89	362	168	530
	District	1,192	679	1,871	209	99	308	1,401	778	2,179

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS AND SPECIAL SCHOOLS—Continued.

School district.	Municipality.	White.			Colored.			Total male.	Total female.	Total enrollment.
		Male.	Fe-male.	Total.	Male.	Fe-male.	Total.			
7	Coamo	520	340	860	244	162	406	764	502	1,266
	Juana Diaz	438	264	702	213	124	337	651	388	1,039
	Santa Isabel	124	104	228	76	56	132	200	160	360
	District	1,082	708	1,790	533	342	875	1,615	1,050	2,665
8	Ponce.....	1,629	1,188	2,817	737	536	1,273	2,366	1,724	4,090
9	Lajas	288	205	493	35	33	68	323	238	561
	Sabana Grande	327	283	610	53	38	91	380	321	701
	Yauco	524	447	971	183	156	339	707	603	1,310
	District	1,139	935	2,074	271	227	498	1,410	1,162	2,572
10	Cabo Rojo	480	320	800	87	47	134	567	367	934
	Maricao	147	95	242	44	41	85	191	136	327
	San Germán	453	462	915	182	143	325	635	605	1,240
	District	1,080	877	1,957	313	231	544	1,393	1,108	2,501
11	Añasco	437	294	731	93	106	199	530	400	930
	Las Marias	213	179	392	34	27	61	247	206	453
	Mayaguez	901	715	1,616	274	232	506	1,175	947	2,122
	District	1,551	1,188	2,739	401	365	766	1,952	1,553	3,505
12	Aguada	236	160	396	59	44	103	295	204	499
	Aguaadilla	634	878	1,512	241	176	417	875	1,054	1,929
	San Sebastian	649	386	1,035	51	35	86	700	421	1,121
	District	1,519	1,424	2,943	351	255	606	1,870	1,679	3,549
13	Camuy	771	367	1,138	60	31	91	831	398	1,229
	Isabela	423	239	662	39	31	70	462	270	732
	District	1,194	606	1,800	99	62	161	1,293	668	1,961
14	Arecibo	865	688	1,553	272	263	535	1,137	951	2,088
	Lares	480	297	777	29	20	49	509	317	826
	District	1,345	985	2,330	301	283	584	1,646	1,268	2,914
15	Adjuntas	388	298	686	28	14	42	416	312	728
	Utuado	868	606	1,474	70	46	116	938	652	1,590
	District	1,256	904	2,160	98	60	158	1,354	964	2,318
16	Ciales	492	281	773	50	32	82	542	313	855
	Manatí	568	404	972	167	131	298	735	535	1,270
	Morovis	339	127	466	33	2	35	372	129	501
	District	1,399	812	2,211	250	165	415	1,649	977	2,626
17	Toa Alta	446	297	743	151	136	287	597	433	1,030
	Vega Baja	464	309	773	114	105	219	578	414	992
	District	910	606	1,516	265	241	506	1,175	847	2,022
18	Bayamón	966	763	1,729	469	395	864	1,435	1,158	2,593
	Vieques	150	140	290	83	65	148	233	205	438
	Total	22,405	15,938	38,343	7,527	5,503	13,030	29,932	21,441	51,373

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

(School year 1903-4.)

COMMON SCHOOLS, BY COLOR.

School district.	Color and municipality.	Male.			Female.			Total graded.	Total rural.	Total white.
		Graded.	Rural.	Total.	Graded.	Rural.	Total.			
1	WHITE.									
	Carolina	153	403	556	147	190	337	300	593	893
	Rio Piedras	126	159	285	117	112	229	243	271	514
	San Juan	915	145	1,060	783	71	854	1,698	216	1,914
	District	1,194	707	1,901	1,047	373	1,420	2,241	1,080	3,321
2	Fajardo	313	236	549	310	139	449	623	375	998
	Naguabo	98	142	240	91	94	185	189	236	425
	Rio Grande	129	417	546	146	239	385	275	656	931
	District	540	795	1,335	547	472	1,019	1,087	1,267	2,354
3	Humacao	278	208	486	284	105	389	562	313	875
	San Lorenzo	248	303	551	197	164	361	445	467	912
	Yabucoa	134	186	320	110	81	191	244	267	511
	District	660	697	1,357	591	350	941	1,251	1,047	2,298
4	Agua Buenas	38	125	163	49	82	131	87	207	294
	Caguas	348	328	676	301	230	531	619	558	1,207
	Cayey	286	386	672	318	178	496	604	564	1,168
	District	672	839	1,511	668	490	1,158	1,340	1,329	2,669
5	Guayama	313	236	549	234	136	370	547	372	919
	Patillas	34	187	221	44	38	82	78	225	303
	District	347	423	770	278	174	452	625	597	1,222
6	Aibonito	182	203	385	152	140	292	334	343	677
	Barros	123	498	621	68	270	338	191	768	959
	Comerio	89	242	331	72	85	157	161	327	488
	District	394	943	1,337	292	495	787	686	1,438	2,124
7	Coamo	175	423	598	121	252	373	296	675	971
	Juana Diaz	140	350	490	99	302	402	239	553	792
	Santa Isabel	83	88	171	87	78	165	170	166	336
	District	398	861	1,259	307	533	840	705	1,394	2,099
8	Ponce	738	926	1,664	593	668	1,261	1,331	1,594	2,925
9	Lajas	48	235	283	55	175	230	103	410	513
	Sabana Grande	174	207	381	177	133	310	351	340	691
	Yauco	241	368	609	302	245	547	543	613	1,156
	District	463	810	1,273	534	553	1,087	997	1,363	2,360
10	Cabo Rojo	208	346	554	206	205	411	414	551	965
	Maricao	85	116	201	96	51	147	181	167	348
	San Germán	255	308	563	209	237	446	464	545	1,009
	District	548	770	1,318	511	493	1,004	1,059	1,263	2,322
11	Añasco	189	269	458	175	174	349	364	443	807
	Las Marias	58	238	296	64	173	237	122	411	533
	Mayaguez	677	614	1,291	530	492	1,022	1,207	1,106	2,313
	District	924	1,121	2,045	769	839	1,608	1,693	1,960	3,653
12	Aguada	82	154	236	65	95	160	147	249	396
	Aguadilla	362	634	996	252	252	504	614	886	1,500
	San Sebastian	166	455	621	145	235	380	311	690	1,001
	District	610	1,243	1,853	462	582	1,044	1,072	1,825	2,897
13	Camuy	388	468	856	324	136	460	712	604	1,316
	Isabela	153	393	546	128	222	350	281	615	896
	District	541	861	1,402	452	358	810	993	1,219	2,212
14	Arecibo	392	645	1,037	378	396	774	770	1,041	1,811
	Lares	185	397	582	127	231	358	312	628	940
	District	577	1,042	1,619	505	627	1,132	1,082	1,669	2,751

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS, BY COLOR—Continued.

School district.	Color and municipality.	Male.			Female.			Total graded.	Total rural.	Total white.
		Graded.	Rural.	Total.	Graded.	Rural.	Total.			
15	WHITE—continued.									
	Ajuntas	208	262	470	187	188	375	395	450	845
	Utuado	304	688	992	270	397	667	574	1,085	1,659
	District	512	950	1,462	457	585	1,042	969	1,535	2,504
16	Ciales	155	466	621	147	230	377	302	696	998
	Manatí	310	383	693	203	240	443	513	623	1,136
	Morovis	77	321	398	64	89	153	141	410	551
	District	542	1,170	1,712	414	559	973	956	1,729	2,685
17	Toa Alta	214	301	515	185	174	359	399	475	874
	Vega Baja	251	302	553	226	170	396	477	472	949
	District	465	603	1,068	411	344	755	876	947	1,823
18	Bayamón	380	770	1,150	332	567	899	712	1,337	2,049
	Vieques	95	112	207	121	71	192	216	183	399
	Total white ...	10,600	15,643	26,243	9,291	9,133	18,424	19,891	24,776	44,667
	COLORED.									
1	Carolina	62	214	276	68	129	197	130	343	473
	Rio Piedras	80	119	199	61	84	145	141	203	344
	San Juan	537	160	697	608	37	645	1,145	197	1,342
	District	679	493	1,172	737	250	987	1,416	743	2,159
2	Fajardo	131	67	198	176	47	223	307	114	421
	Naguabo	19	59	78	24	49	73	43	108	151
	Rio Grande	143	285	428	164	161	325	307	446	753
	District	293	411	704	364	257	621	657	668	1,325
3	Humacao	100	62	162	68	36	104	168	98	266
	San Lorenzo	77	98	175	87	49	136	164	147	311
	Yabucoa	71	84	155	42	44	86	113	128	241
	District	248	244	492	197	129	326	445	373	818
4	Aguas Buenas	8	56	64	6	32	38	14	88	102
	Caguas	172	178	350	104	130	234	276	308	584
	Cayey	59	141	200	68	71	139	127	212	339
	District	239	375	614	178	233	411	417	608	1,025
5	Guayama	220	238	458	319	117	436	539	355	894
	Patillas	30	68	98	25	24	49	55	92	147
	District	250	306	556	344	141	485	594	447	1,041
6	Aibonito	53	33	86	16	18	34	69	51	120
	Barros	31	59	90	17	23	40	48	82	130
	Comerio	24	37	61	20	12	32	44	49	93
	District	108	129	237	53	53	106	161	182	343
7	Coamo	130	196	326	102	86	188	232	282	514
	Juana Díaz	62	147	209	66	76	142	128	223	351
	Santa Isabel	67	42	109	50	32	82	117	74	191
	District	259	385	644	218	194	412	477	579	1,056
8	Ponce	331	421	752	248	354	602	579	775	1,354
9	Lajas	4	36	40	6	31	37	10	67	77
	Sabana Grande	10	45	55	8	30	38	18	75	93
	Yauco	173	129	302	66	74	140	239	203	442
	District	187	210	397	80	135	215	267	345	612

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS, BY COLOR—Continued.

School district.	Color and municipality.	Male.			Female.			Total graded.	Total rural.	Total colored.
		Graded.	Rural.	Total.	Graded.	Rural.	Total.			
	COLORED—cont'd.									
10	Cabo Rojo	24	85	109	21	37	58	45	122	167
	Maricao	27	31	58	21	26	47	48	57	105
	San Germán	82	112	194	56	99	155	138	211	349
	District	133	228	361	98	162	260	231	390	621
11	Añasco	51	38	89	53	69	122	104	107	211
	Las Marias	3	55	58	8	23	31	11	78	89
	Mayaguez	241	117	358	199	111	310	440	228	668
	District	295	210	505	260	203	463	555	413	968
12	Aguada	33	26	59	19	25	44	52	51	103
	Aguadilla	71	140	211	82	89	171	153	229	382
	San Sebastian	18	19	37	14	15	29	32	34	66
	District	122	185	307	115	129	244	237	314	551
13	Camuy	50	32	82	30	6	36	80	38	118
	Isabela	13	29	42	8	30	38	21	59	80
	District	63	61	124	38	36	74	101	97	198
	Arecibo	122	221	343	116	167	283	238	388	626
14	Lares	19	18	37	14	4	18	33	22	55
	District	141	239	380	130	171	301	271	410	681
15	Adjuntas	22	15	37	7	11	18	29	26	55
	Utuado	33	35	68	30	15	45	63	50	113
	District	55	50	105	37	26	63	92	76	168
	Ciales	27	46	73	17	24	41	44	70	114
16	Manatí	91	125	216	82	80	162	173	205	378
	Morovis		36	36	1	1	2	1	37	38
	District	118	207	325	100	105	205	218	312	530
	Toa Alta	155	54	209	102	67	169	257	121	378
17	Vega Baja	80	68	148	57	48	105	137	116	253
	District	235	122	357	159	115	274	394	237	631
18	Bayamón	231	349	580	179	274	453	410	623	1,033
	Vieques	88	69	157	79	29	108	167	98	265
	Total colored ..	4,075	4,694	8,769	3,614	2,996	6,610	7,689	7,690	15,379
	Total white ..	10,600	15,643	26,243	9,291	9,133	18,424	19,891	24,776	44,667
	Grand total ..	14,675	20,337	35,012	12,905	12,129	25,034	27,580	32,466	60,046

COMMON SCHOOLS, BY SEX.

School district.	Municipality.	Graded.			Rural.			Total male.	Total female.	Total enrollment.
		Male.	Female.	Total enrollment.	Male.	Female.	Total enrollment.			
1	Carolina	215	215	430	617	319	936	832	534	1,366
	Rio Piedras	206	178	384	278	196	474	484	374	858
	San Juan	1,452	1,391	2,843	305	108	413	1,757	1,499	3,256
	District	1,873	1,784	3,657	1,200	623	1,823	3,073	2,407	5,480
2	Fajardo	444	486	930	303	186	489	747	672	1,419
	Naguabo	117	115	232	201	143	344	318	258	576
	Rio Grande	272	310	582	702	400	1,102	974	710	1,684
	District	833	911	1,744	1,206	729	1,935	2,039	1,640	3,679

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS, BY SEX—Continued.

School district.	Municipality.	Graded.			Rural.			Total male.	Total female.	Total enrollment.
		Male.	Female.	Total enrollment.	Male.	Female.	Total enrollment.			
3	Humacao	378	352	730	270	141	411	648	493	1,141
	San Lorenzo	325	284	609	401	213	614	726	497	1,223
	Yabucoa	205	152	357	270	125	395	475	277	752
	District	908	788	1,696	941	479	1,420	1,849	1,267	3,116
4	Agua Buenas	46	55	101	181	114	295	227	169	396
	Caguas	520	405	925	506	360	866	1,026	765	1,791
	Cayey	345	386	731	527	249	776	872	635	1,507
	District	911	846	1,757	1,214	723	1,937	2,125	1,569	3,694
5	Guayama	533	553	1,086	474	253	727	1,007	806	1,813
	Patillas	64	69	133	255	62	317	319	131	450
	District	597	622	1,219	729	315	1,044	1,326	937	2,263
6	Aibonito	235	168	403	236	158	394	471	326	797
	Barros	154	85	239	557	293	850	711	378	1,089
	Comerio	113	92	205	279	97	376	392	189	581
	District	502	345	847	1,072	548	1,620	1,574	893	2,467
7	Coamo	305	223	528	619	338	957	924	561	1,485
	Juana Diaz	202	165	367	497	279	776	699	444	1,143
	Santa Isabel	150	137	287	130	110	240	280	247	527
	District	657	525	1,182	1,246	727	1,973	1,903	1,252	3,155
8	Ponce	1,069	841	1,910	1,347	1,022	2,369	2,416	1,863	4,279
9	Lajas	52	61	113	271	206	477	323	267	590
	Sabana Grande	184	185	369	252	163	415	436	348	784
	Yauco	414	368	782	497	319	816	911	687	1,598
	District	650	614	1,264	1,020	688	1,708	1,670	1,302	2,972
10	Cabo Rojo	232	227	459	431	242	673	663	469	1,132
	Maricao	112	117	229	147	77	224	259	194	453
	San Germán	337	265	602	420	336	756	757	601	1,358
	District	681	609	1,290	998	655	1,653	1,679	1,264	2,943
11	Añasco	240	228	468	307	243	550	547	471	1,018
	Las Marias	61	72	133	293	196	489	354	268	622
	Mayaguez	918	729	1,647	731	603	1,334	1,649	1,332	2,981
	District	1,219	1,029	2,248	1,331	1,042	2,373	2,550	2,071	4,621
12	Aguada	115	84	199	180	120	300	295	204	499
	Agua de la Parra	433	334	767	774	341	1,115	1,207	675	1,882
	San Sebastian	184	159	343	474	250	724	658	409	1,067
	District	732	577	1,309	1,428	711	2,139	2,160	1,288	3,448
13	Camuy	438	354	792	500	142	642	938	496	1,434
	Isabela	166	136	302	422	252	674	588	388	976
	District	604	490	1,094	922	394	1,316	1,526	884	2,410
14	Arecibo	514	494	1,008	866	563	1,429	1,380	1,057	2,437
	Lares	204	141	345	415	235	650	619	376	995
	District	718	635	1,353	1,281	798	2,079	1,999	1,433	3,432
15	Adjuntas	230	194	424	277	199	476	507	393	900
	Ututo	337	300	637	723	412	1,135	1,060	712	1,772
	District	567	494	1,061	1,000	611	1,611	1,567	1,105	2,672
16	Ciales	182	164	346	512	254	766	694	418	1,112
	Manati	401	285	686	508	320	828	909	605	1,514
	Morovis	77	65	142	357	90	447	434	155	589
	District	660	514	1,174	1,377	664	2,041	2,037	1,178	3,215

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS, BY SEX—Continued.

School district.	Municipality.	Graded.			Rural.			Total male.	Total female.	Total enrollment.
		Male.	Female.	Total enrollment.	Male.	Female.	Total enrollment.			
17	Toa Alta	369	287	656	355	241	596	724	528	1,252
	Vega Baja	331	283	614	370	218	588	701	501	1,202
	District	700	570	1,270	725	459	1,184	1,425	1,029	2,454
18	Bayamón	611	511	1,122	1,119	841	1,960	1,730	1,352	3,082
	Vieques	183	200	383	181	100	281	364	300	664
	Total	14,675	12,905	27,580	20,337	12,129	32,466	35,012	25,034	60,046

SPECIAL SCHOOLS, BY COLOR.

School district.	Municipality.	Male.					Female.					Grand total.		
		High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total.	High.	Industrial.	Night.	Agricultural.		Kindergarten.	Total.
1	WHITE.													
	Carolina				17		17							17
	San Juan	38	44	130		45	257	13	84	59		47	203	460
2	District	38	44	130	17	45	274	13	84	59		47	203	477
	Fajardo				32		32			9			9	41
	Rio Grande				33		33							33
3	District				65		65			9			9	74
	Humacao				31	80	111				13		13	124
	San Lorenzo				45	15	60				12		12	72
4	District				76	95	171				25		25	196
	Cayey				38		38			19			19	57
	Guayama				42	4	46			7	1		8	54
5	Barros				57		57				22		22	79
	Coamo				7		7			32			32	39
	Juana Diaz				33		33			11			11	44
6	District				40		40			43			43	83
	Ponce	20	63	82	11	29	205	9	32	76	5	27	149	354
	Lajas				55		55							55
7	Sabana Grande				18		18				22		22	40
	District				73		73				22		22	95
	Cabo Rojo				39		39				31		31	70
8	San Germán				52		52							52
	District				52	39	91				31		31	122
	Añasco				47		47							47
9	Mayaguez	6	67	46			119	11	81				92	211
	District	6	67	93			166	11	81				92	258
	Aguadilla				25		25			13			13	38
10	San Sebastian				28		28			6			6	34
	District				53		53			19			19	72
	Camuy				43		43							43
11	Arecibo		54				54		63				63	117
	Lares				57		57		19				19	76
	District		54	57			111		63	19			82	193

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

SPECIAL SCHOOLS, BY COLOR—Continued.

School district.	Municipality.	Male.					Female.					Grand total.		
		High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total.	High.	Industrial.	Night.	Agricultural.		Kindergarten.	Total.
	WHITE—continued.													
15	Utuado			33	37	70			19	28		47	117	
16	Manatí			29		29			15			15	44	
17	Toa Alta				46	46				18		18	64	
18	Bayamón				26	26				14		14	40	
	Total	64	228	790	448	74	1,604	33	260	285	166	74	818	2,442
	COLORED.													
1	Carolina				36	36							36	
	San Juan	7	14	41	17	79	3	17	15		22	57	136	
	District	7	14	41	36	17	115	3	17	15		22	172	
2	Fajardo			26		26			9			9	35	
	Río Grande			41		41							41	
	District			67		67			9			9	76	
3	Humacao			32	23	55				16		16	71	
	San Lorenzo			27	8	35			1	10		11	46	
	District			59	31	90			1	26		27	117	
4	Cayey			22		22			9			9	31	
5	Guayama			35	34	69			4	12		16	85	
6	Barros				7	7				2		2	9	
7	Coamo			2		2			9			9	11	
	Juana Díaz			34		34			5			5	39	
	District			36		36			14			14	50	
8	Ponce		10	52	13	6	81	11	61	5	2	79	160	
9	Lajas				4	4							4	
	Sabana Grande				8	8				6		6	14	
	District				12	12				6		6	18	
10	Cabo Rojo				5	5				1		1	6	
	San Germán			36		36							36	
	District			36	5	41				1		1	42	
11	Añasco			19		19							19	
	Mayaguez	2	15	62		79	3	24				27	106	
	District	2	15	81		98	3	24				27	125	
12	Aguadilla			35		35			7			7	42	
	San Sebastian			14		14			6			6	20	
	District			49		49			13			13	62	
13	Camuy				1	1							1	
14	Arecibo		5			5		20				20	25	
	Lares			8		8			4			4	12	
	District		5	8		13		20	4			24	37	
15	Utuado			22	4	26			3	1		4	30	
16	Manatí			25		25			5			5	30	
17	Toa Alta				10	10				2		2	12	
18	Bayamón				16	16				15		15	31	
	Total colored	9	44	533	169	23	778	6	72	138	70	24	1,088	
	Total white	64	288	790	448	74	1,604	33	260	285	166	74	2,422	
	Grand total	73	272	1,323	617	97	2,382	39	332	423	236	98	3,510	

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

SPECIAL SCHOOLS, BY SEX.

School district.	Municipality.	High.			Industrial.			Night.			Agricultural.			Kindergarten.			Total male.	Total female.	Total enrollment.
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.			
1	Carolina.....	45	16	61	58	101	159	171	74	245	53	53	106	62	69	131	53	260	596
	District.....	45	16	61	58	101	159	171	74	245	53	53	106	62	69	131	389	260	649
2	Fajardo.....							58	18	76							58	18	76
	Rio Grande.....							74		74							74		74
3	District.....							132	18	150							132	18	150
	Humacao.....							63		63	103	29	132				166	29	195
4	San Lorenzo.....							72	1	73	23	22	45				95	23	118
	District.....							135	1	136	126	51	177				261	52	313
5	Cayey.....							60	28	88							60	28	88
6	Guayama.....							77	11	88	38	13	51				115	24	139
7	Barros.....									64	24	86					64	24	88
8	Coamo.....							9	41	50							9	41	50
	Juana Diaz.....							67	16	83							67	16	83
9	District.....							76	57	133							76	57	133
	Ponce.....	20	9	29	73	43	116	134	137	271	24	10	34	35	29	64	286	228	514
10	Lajas.....										59		59				59		59
	Sabana Grande.....										26	28	54				26	28	54
11	District.....										85	28	113				85	28	113
	Cabo Rojo.....										44	32	76				44	32	76
12	San German.....							88		88							88		88
	District.....							88		88	44	32	76				132	32	164
13	Añasco.....							66		66							66		66
	Mayaguez.....	8	14	22	82	105	187	108		108							198	119	317
14	District.....	8	14	22	82	105	187	174		174							264	119	383
	Aguadilla.....							60	20	80							60	20	80
15	San Sebastian.....							42	12	54							42	12	54
	District.....							102	32	134							102	32	134
16	Camuy.....										44		44				44		44
	Arecibo.....				59	83	142										59	83	142
17	Lares.....							65	23	88							65	23	88
	District.....				59	83	142	65	23	88							124	106	230
18	Utua.....							55	22	77	41	29	70				96	51	147
	Manati.....							54	20	74							54	20	74
19	Toa Alta.....										56	20	76				56	20	76
	Bayamón.....										42	29	71				42	29	71
Total.....		73	39	112	272	332	604	1,323	423	1,746	617	236	853	97	98	195	2,382	1,128	3,510

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

SPECIAL SCHOOLS, BY COLOR.

School district.	Municipality.	High.			Industrial.			Night.			Agricultural.			Kindergarten.			Total white.	Total colored.	Total enrollment.
		White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.			
1	Carolina										17	36	53				17	36	53
	San Juan	51	10	61	128	31	159	189	56	245				92	39	131	460	136	596
	District	51	10	61	128	31	159	189	56	245	17	36	53	92	39	131	477	172	649
2	Fajardo							41	35	76							41	35	76
	Rio Grande							33	41	74							33	41	74
	District							74	76	150							74	76	150
3	Humacao							31	32	63	93	39	132				124	71	195
	San Lorenzo							45	28	73	27	18	45				72	46	118
	District							76	60	136	120	57	177				196	117	313
4	Cayey							57	31	88							57	31	88
5	Guayama							49	39	88	5	46	51				54	85	139
6	Barros										79	9	88				79	9	88
7	Coamo							39	11	50							39	11	50
	Juana Diaz							44	39	83							44	39	83
	District							83	50	133							83	50	133
8	Ponce	29		29	95	21	116	158	113	271	16	18	34	56	8	64	354	160	514
9	Lajas										55	4	59				55	4	59
	Sabana Grande										40	14	54				40	14	54
	District										95	18	113				95	18	113
10	Cabo Rojo										70	6	76				70	6	76
	San Germán							52	36	88							52	36	88
	District							52	36	88	70	6	76				122	42	164
11	Añasco							47	19	66							47	19	66
	Mayaguez	17	5	22	148	39	187	46	62	108							211	106	317
	District	17	5	22	148	39	187	93	81	174							285	125	383
12	Aguadilla							38	42	80							38	42	80
	San Sebastian							34	20	54							34	20	54
	District							72	62	134							72	62	134
13	Camuy										43	1	44				43	1	44
14	Arecibo				117	25	142										117	25	142
	Lares							76	12	88							76	12	88
	District				117	25	142	76	12	88							193	37	230
15	Utua							52	25	77	65	5	70				117	30	147
16	Manatí							44	30	74							44	30	74
17	Toa Alta										64	12	76				64	12	76
18	Bayamón										40	31	71				40	31	71
	Total	97	15	112	488	116	604	1,075	671	1,746	614	239	853	148	47	195	2,422	1,088	3,510

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS AND SPECIAL SCHOOLS.

School district.	Municipality.	White.			Colored.			Total male.	Total female.	Total enrollment.
		Male.	Female.	Total.	Male.	Female.	Total.			
1	Carolina	573	337	910	312	197	509	885	534	1,419
	Rio Piedras	285	229	514	199	145	344	484	374	858
	San Juan	1,317	1,057	2,374	776	702	1,478	2,093	1,759	3,852
	District	2,175	1,623	3,798	1,287	1,044	2,331	3,462	2,667	6,129
2	Fajardo	581	458	1,039	224	232	456	805	690	1,495
	Naguabo	240	185	425	78	73	151	318	258	576
	Rio Grande	579	385	964	469	325	794	1,048	710	1,758
	District	1,400	1,028	2,428	771	630	1,401	2,171	1,658	3,829
3	Humacao	597	402	999	217	120	337	814	522	1,336
	San Lorenzo	611	373	984	210	147	357	821	520	1,341
	Yabucoa	320	191	511	155	86	241	475	277	752
	District	1,528	966	2,494	582	353	935	2,110	1,319	3,429
4	Aguas Buenas	163	131	294	64	38	102	227	169	396
	Caguas	676	531	1,207	350	254	584	1,026	765	1,791
	Cayey	710	515	1,225	222	148	370	932	663	1,595
	District	1,549	1,177	2,726	636	420	1,056	2,185	1,597	3,782
5	Guayama	595	378	973	527	452	979	1,122	830	1,952
	Patillas	221	82	303	98	49	147	319	131	450
	District	816	460	1,276	625	501	1,126	1,441	961	2,402
6	Aibonito	385	292	677	86	34	120	471	326	797
	Barros	678	360	1,038	97	42	139	775	402	1,177
	Comerio	331	157	488	61	32	93	392	189	581
	District	1,394	809	2,203	244	108	352	1,638	917	2,555
7	Coamo	605	405	1,010	328	197	525	933	602	1,535
	Juana Diaz	523	313	836	243	147	390	766	460	1,226
	Santa Isabel	171	165	336	109	82	191	280	247	527
	District	1,299	883	2,182	680	426	1,106	1,979	1,309	3,288
8	Ponce	1,869	1,410	3,279	833	681	1,514	2,702	2,091	4,793
9	Lajas	338	230	568	44	37	81	382	267	649
	Sabana Grande	399	332	731	63	44	107	462	376	838
	Yauco	609	547	1,156	302	140	442	911	687	1,598
	District	1,346	1,109	2,455	409	221	630	1,755	1,330	3,085
10	Cabo Rojo	593	442	1,035	114	59	173	707	501	1,208
	Maricao	201	147	348	58	47	105	259	194	453
	San Germán	615	446	1,061	230	155	385	845	601	1,446
	District	1,409	1,035	2,444	402	261	663	1,811	1,296	3,107
11	Añasco	505	349	854	108	122	230	613	471	1,084
	Las Marias	296	237	533	58	31	89	354	268	622
	Mayaguez	1,410	1,114	2,524	437	337	774	1,847	1,451	3,298
	District	2,211	1,700	3,911	603	490	1,093	2,814	2,190	5,004
12	Aguada	236	160	396	59	44	103	295	204	499
	Aguadilla	1,021	517	1,538	246	178	424	1,267	695	1,962
	San Sebastian	649	386	1,035	51	35	86	700	421	1,121
	District	1,906	1,063	2,969	356	257	613	2,262	1,320	3,582
13	Camuy	899	460	1,359	83	36	119	982	496	1,478
	Isabela	546	350	896	42	38	80	588	388	976
	District	1,445	810	2,255	125	74	199	1,570	884	2,454
14	Arecibo	1,091	837	1,928	348	303	651	1,439	1,140	2,579
	Lares	639	377	1,016	45	22	67	684	399	1,083
	District	1,730	1,214	2,944	393	325	718	2,123	1,539	3,662

TABLE I.—*Distribution (pupils) by sex and color—Common schools and special schools—Continued.*

COMMON SCHOOLS AND SPECIAL SCHOOLS—Continued.

School district.	Municipality.	White.			Colored.			Total male.	Total female.	Total enrollment.
		Male.	Female.	Total.	Male.	Female.	Total.			
15	Adjuntas.....	470	375	845	37	18	55	507	393	900
	Utua.....	1,062	714	1,776	94	49	143	1,156	763	1,919
	District	1,532	1,089	2,621	131	67	198	1,663	1,156	2,819
16	Ciales.....	621	377	998	73	41	114	694	418	1,112
	Manati.....	722	458	1,180	241	167	408	963	625	1,588
	Morovis.....	398	153	551	36	2	38	434	155	589
	District	1,741	988	2,729	350	210	560	2,091	1,198	3,289
17	Toa Alta.....	561	377	938	219	171	390	780	548	1,328
	Vega Baja.....	553	396	949	148	105	253	701	501	1,202
	District	1,114	773	1,887	367	376	643	1,481	1,049	2,530
18	Bayamon.....	1,176	913	2,089	596	468	1,064	1,772	1,381	3,153
	Vieques.....	207	192	399	157	108	265	364	300	664
	Total.....	27,847	19,242	47,089	9,547	6,920	16,467	37,394	26,162	63,556

TABLE II.—*Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools.*

(First term, 1903-4.)

GRADED SCHOOLS.

School district.	Municipality.	Grade.								Enrollment.
		1	2	3	4	5	6	7	8	
1	Carolina.....	160	76	83	31	24	15	6	8	403
	Rio Piedras.....	141	62	53	61	36	13	.....	.....	366
	San Juan.....	967	576	312	231	124	65	46	53	2,374
	District	1,268	714	448	323	184	93	52	61	3,143
2	Fajardo.....	245	225	120	84	45	28	29	.....	776
	Naguabo.....	98	37	21	33	13	.....	.....	.....	202
	Rio Grande.....	210	105	83	69	30	14	.....	.....	511
	District	553	367	224	186	88	42	29	.....	1,489
3	Humacao.....	264	132	53	43	27	15	.....	.....	534
	San Lorenzo.....	161	127	64	37	6	.....	.....	.....	395
	Yabucoa.....	131	31	35	57	26	14	.....	.....	294
	District	556	290	152	137	59	29	.....	.....	1,223
4	Aguas Buenas.....	96	26	19	17	.....	.....	.....	.....	158
	Caguas.....	226	216	109	60	43	23	18	.....	695
	Cayey.....	160	175	101	60	26	16	.....	.....	538
	District	482	417	229	137	69	39	18	.....	1,391
5	Guayama.....	330	261	154	104	56	40	.....	.....	945
	Patillas.....	82	28	12	.....	.....	.....	.....	.....	122
	District	412	289	166	104	56	40	.....	.....	1,067
6	Aibonito.....	167	62	42	23	12	.....	.....	.....	306
	Barros.....	75	74	36	11	8	.....	.....	.....	204
	Comerio.....	93	19	24	29	7	.....	.....	.....	172
	District	335	155	102	63	27	.....	.....	.....	682
7	Coamo.....	113	176	86	59	14	.....	.....	.....	448
	Juana Diaz.....	122	111	57	26	18	.....	.....	.....	334
	Santa Isabel.....	84	31	16	21	.....	.....	.....	.....	152
	District	319	318	159	106	32	.....	.....	.....	934

TABLE II.—*Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools—Continued.*

GRADED SCHOOLS—Continued.

School district.	Municipality.	Grade.								Enrollment.
		1	2	3	4	5	6	7	8	
8	Ponce.....	724	387	301	121	117	81	55	45	1,831
	Lajas.....	43	29	.....	23	.....	.....	.....	.....	95
	Sabana Grande.....	105	73	58	25	41	16	14	.....	332
9	Yauco.....	224	186	158	18	93	.....	22	11	712
	District.....	372	288	216	66	134	16	36	11	1,139
	Cabo Rojo.....	106	57	43	58	29	.....	8	.....	301
	Maricao.....	66	60	26	12	.....	.....	.....	.....	164
10	San Germán.....	110	129	116	69	64	19	16	.....	523
	District.....	282	246	185	139	93	19	24	.....	988
	Añasco.....	123	124	83	44	20	9	.....	.....	403
	Las Marias.....	46	17	17	.....	.....	.....	.....	.....	80
11	Mayaguez.....	397	322	269	115	.....	16	30	25	1,174
	District.....	566	463	369	159	20	25	30	25	1,657
	Aguada.....	62	50	38	15	8	.....	.....	.....	173
	Agüadilla.....	251	181	128	59	.....	8	.....	.....	627
12	San Sebastián.....	155	29	28	41	10	.....	11	.....	274
	District.....	468	260	194	115	18	8	11	.....	1,074
	Camuy.....	286	142	86	73	47	10	.....	.....	644
13	Isabela.....	105	49	23	17	23	14	.....	.....	231
	District.....	391	191	109	90	70	24	.....	.....	875
	Arecibo.....	439	216	115	67	24	12	24	.....	897
14	Lares.....	123	20	27	28	40	10	18	.....	266
	District.....	562	236	142	95	64	22	42	.....	1,163
	Adjuntas.....	106	74	53	26	17	25	12	.....	313
15	Utuado.....	230	97	81	39	17	8	5	.....	477
	District.....	336	171	134	65	34	33	17	.....	790
	Ciales.....	133	57	30	15	.....	.....	.....	.....	235
	Manatí.....	287	152	78	33	.....	8	15	.....	573
16	Morovis.....	85	17	28	13	.....	.....	.....	.....	143
	District.....	505	226	136	61	.....	8	15	.....	951
	Toa Alta.....	244	130	70	50	30	3	.....	.....	527
17	Vega Baja.....	251	86	70	77	27	.....	16	.....	527
	District.....	495	216	140	127	57	3	16	.....	1,054
18	Bayamón.....	506	215	136	75	21	19	.....	.....	972
	Vieques.....	115	58	50	28	14	.....	.....	.....	265
	Total.....	9,247	5,507	3,592	2,197	1,157	501	345	142	22,688

RURAL SCHOOLS.

School district.	Municipality.	Grade.						Enrollment.
		1	2	3	4	5	6	
1	Carolina.....	490	247	65	.....	.....	.....	802
	Río Piedras.....	324	67	6	.....	.....	.....	397
	San Juan.....	273	91	.....	.....	.....	.....	364
	District.....	1,087	405	71	.....	.....	.....	1,563
	Fajardo.....	271	106	51	.....	.....	.....	428
2	Naguabo.....	167	78	55	.....	.....	.....	300
	Río Grande.....	582	288	110	17	4	.....	1,001
	District.....	1,020	472	216	17	4	.....	1,729

TABLE II.—*Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools—Continued.*

RURAL SCHOOLS—Continued.

School district.	Municipality.	Grade.						Enroll-ment.
		1	2	3	4	5	6	
3	Humacao	271	77	31				379
	San Lorenzo	326	86	12				424
	Yabucoa	270	69	5				344
	District	867	232	48				1,147
4	Aguas Buenas	172	34	19				225
	Caguas	446	169	31				646
	Cayey	455	116	21	19			611
	District	1,073	319	71	19			1,482
5	Guayama	486	98	6				590
	Patillas	178	76	6				260
	District	664	174	12				850
6	Aibonito	190	78	10	6			284
	Barros	369	194	52	9			624
	Comerio	286	60					346
	District	845	332	62	15			1,254
7	Coamo	504	240	110	9	9		872
	Juana Diaz	482	141	43				666
	Santa Isabel	152	39	13				204
	District	1,138	420	166	9	9		1,742
8	Ponce	1,253	411	106				1,770
9	Lajas	232	134	44	9		1	420
	Sabana Grande	257	92	34				383
	Yauco	451	156	51	6			664
	District	940	382	129	15		1	1,467
10	Cabo Rojo	322	152	102				576
	Maricao	49	25	8				82
	San German	274	170	95	9			548
	District	645	347	205	9			1,206
11	Añasco	222	123	49				394
	Las Marias	153	52					205
	Mayaguez	556	229	31				816
	District	931	404	80				1,415
12	Aguada	153	53	30				236
	Aguadilla	577	252	147				976
	San Sebastian	366	146	68	3			583
	District	1,096	451	245	3			1,795
13	Camuy	302	163	103	7			575
	Isabela	280	133	75	13			501
	District	582	296	178	20			1,076
14	Arecibo	770	264	82	7			1,123
	Lares	286	104	50				440
	District	1,056	368	132	7			1,563
15	Adjuntas	215	98	56				369
	Utua	411	194	106				711
	District	626	292	162				1,080
16	Ciales	302	78	53				433
	Manati	396	163	36	10	13		618
	Morovis	247	76	43	13			379
	District	945	317	132	23	13		1,430

TABLE II.—*Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools—Continued.*

RURAL SCHOOLS—Continued.

School district.	Municipality.	Grade.						Enrollment.
		1	2	3	4	5	6	
17	Toa Alta	309	136	88	12	.....	.....	545
	Vega Baja	302	159	77	6	.....	.....	544
	District	611	295	165	18	.....	.....	1,089
18	Bayamón	931	529	124	.....	.....	.....	1,584
	Vieques	173	53	18	.....	.....	.....	244
	Total	16,483	6,499	2,322	155	26	1	25,486

COMMON SCHOOLS.

School district.	Municipality.	Grade.								Enrollment.
		1	2	3	4	5	6	7	8	
1	Carolina	650	323	148	31	24	15	6	8	1,205
	Rio Piedras	465	129	59	61	36	13	.....	.....	763
	San Juan	1,240	667	312	231	124	65	46	53	2,738
	District	2,355	1,119	519	323	184	93	52	61	4,706
2	Fajardo	516	331	171	84	45	28	29	.....	1,204
	Naguabo	265	115	76	33	13	.....	.....	.....	502
	Rio Grande	792	393	193	86	34	14	.....	.....	1,512
	District	1,573	839	440	203	92	42	29	.....	3,218
3	Humacao	535	209	84	43	27	15	.....	.....	913
	San Lorenzo	487	213	76	37	6	.....	.....	.....	819
	Yabucoa	401	100	40	57	26	14	.....	.....	638
	District	1,423	522	200	137	59	29	.....	.....	2,370
4	Agua Buenas	268	60	38	17	.....	.....	.....	.....	383
	Caguas	672	385	140	60	43	23	18	.....	1,341
	Cayey	615	291	122	79	26	16	.....	.....	1,149
	District	1,555	736	300	156	69	39	18	.....	2,873
5	Guayama	816	359	160	104	56	40	.....	.....	1,535
	Patillas	260	104	18	.....	.....	.....	.....	.....	382
	District	1,076	463	178	104	56	40	.....	.....	1,917
6	Aibonito	357	140	52	29	12	.....	.....	.....	590
	Barros	444	268	88	20	8	.....	.....	.....	828
	Comerio	379	79	24	29	7	.....	.....	.....	518
	District	1,180	487	164	78	27	.....	.....	.....	1,936
7	Coamo	617	416	196	68	23	.....	.....	.....	1,320
	Juana Diaz	604	252	100	26	18	.....	.....	.....	1,000
	Santa Isabel	236	70	29	21	.....	.....	.....	.....	356
	District	1,457	738	325	115	41	.....	.....	.....	2,676
8	Ponce	1,977	798	407	121	117	81	55	45	3,601
9	Lajas	275	163	44	32	.....	1	.....	.....	515
	Sabana Grande	362	165	92	25	41	16	14	.....	715
	Yauco	675	342	209	24	93	.....	22	11	1,376
	District	1,312	670	345	81	134	17	36	11	2,606
10	Cabo Rojo	428	205	145	58	29	.....	8	.....	877
	Maricao	115	85	34	12	.....	.....	.....	.....	246
	San Germán	384	299	211	78	64	19	16	.....	1,071
	District	927	593	390	148	93	19	24	.....	2,194
11	Añasco	345	247	132	44	20	9	.....	.....	797
	Las Marias	199	69	17	.....	.....	.....	.....	.....	285
	Mayaguez	953	551	300	115	.....	16	30	25	1,990
	District	1,497	867	449	159	20	25	30	25	3,072

COMMON SCHOOLS—Continued.

School district.	Municipality.	Grade.								Enrollment.	
		1	2	3	4	5	6	7	8		
12	Aguada	215	103	68	15	8				409 1,603 857	
	Aguadilla	828	433	275	59		8				
	San Sebastian	521	175	96	44	10		11			
	District	1,564	711	439	118	18	8	11			2,869
13	Cumuy	588	305	189	80	47	10			1,219 732	
	Isabela	385	182	98	30	23	14				
	District	973	487	287	110	70	24				1,951
14	Arecibo	1,209	480	197	84	24	12	24		2,020 706	
	Lares	409	124	77	28	40	10	18			
	District	1,618	604	274	102	64	22	42			2,726
15	Adjuntas	321	172	109	26	17	25	12		682 1,188	
	Utua	641	291	187	39	17	8	6			
	District	962	463	296	65	34	33	17			1,870
16	Ciales	435	135	83	15					668 1,191 522	
	Manati	683	315	114	43	13	8	15			
	Morovis	332	93	71	26						
	District	1,450	543	268	84	13	8	15			2,381
17	Toa Alta	553	266	158	62	30	3			1,072 1,071	
	Vega Baja	553	245	147	83	27		16			
	District	1,106	511	305	145	57	3	16			2,143
18	Bayamón	1,437	744	260	75	21	19			2,556 509	
	Vieques	288	111	68	28	14					
	Total	25,730	12,006	5,914	2,352	1,183	502	345	142		48,174

[illegible]

TABLE II.—*Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools—Continued.*

(Second term, 1903-4.)

GRADED SCHOOLS.

School district.	Municipality.	Grade.								Enrollment.
		1	2	3	4	5	6	7	8	
1	Carolina	154	72	56	26	22	12	4	5	351
	Rio Piedras	106	63	52	39	23	11	.....	.....	294
	San Juan	990	523	286	177	112	94	39	46	2,267
	District	1,250	658	394	242	157	117	43	51	2,912
2	Fajardo	301	192	129	73	42	33	25	2	797
	Naguabo	65	41	17	38	14	.....	.....	.....	175
	Rio Grande	189	83	78	73	28	14	.....	.....	465
	District	555	316	224	184	84	47	25	2	1,437
3	Humacao	285	157	65	36	28	27	15	.....	613
	Naguabo	139	139	115	45	5	.....	.....	.....	443
	Yabucoa	120	55	16	76	8	28	14	.....	317
	District	544	351	196	157	41	55	29	.....	1,373
4	Aguas Buenas	26	22	14	15	.....	.....	.....	.....	77
	Caguas	301	235	121	42	41	24	18	.....	782
	Cayey	161	185	109	69	17	20	.....	.....	561
	District	488	442	244	126	58	44	18	.....	1,420
5	Guayama	342	244	195	85	50	39	.....	.....	955
	Patillas	63	35	13	.....	.....	.....	.....	.....	111
	District	405	279	208	85	50	39	.....	.....	1,066
6	Aibonito	142	52	42	18	20	.....	.....	.....	274
	Barros	72	48	18	14	10	7	.....	.....	169
	Comerio	91	22	21	27	5	.....	.....	.....	166
	District	305	122	81	59	35	7	.....	.....	609
7	Coamo	84	217	104	62	7	12	.....	.....	486
	Juana Diaz	79	124	58	24	22	18	.....	.....	325
	Santa Isabel	87	77	78	27	.....	.....	.....	.....	269
	District	250	418	240	113	29	30	.....	.....	1,080
8	Ponce	625	399	271	152	81	37	36	31	1,632
9	Lajas	37	29	.....	23	.....	.....	.....	.....	89
	Sabana Grande	118	76	57	22	38	16	14	.....	341
	Yauco	176	111	162	58	79	14	14	.....	614
	District	331	216	219	103	117	30	28	.....	1,044
10	Cabo Rojo	105	55	61	83	19	.....	5	.....	328
	Maricao	92	31	31	7	.....	.....	.....	.....	161
	San German	115	136	111	67	62	18	18	.....	527
	District	312	222	203	157	81	18	23	.....	1,016
11	Añasco	143	132	68	59	18	15	4	.....	439
	Las Marias	51	27	18	15	.....	.....	.....	.....	111
	Mayaguez	305	371	184	111	61	17	26	27	1,102
	District	499	530	270	185	79	32	30	27	1,652
12	Aguada	71	54	41	16	11	.....	.....	.....	193
	Aguadilla	304	209	138	49	20	10	.....	.....	730
	San Sebastian	171	51	41	46	10	11	.....	.....	330
	District	546	314	220	111	41	21	.....	.....	1,253
13	Camuy	289	137	49	82	51	12	7	.....	627
	Isabela	59	59	28	21	18	23	14	.....	222
	District	348	196	77	103	69	35	21	.....	849
14	Arecibo	372	251	116	66	16	10	22	.....	853
	Lares	103	24	22	35	41	11	19	.....	255
	District	475	275	138	101	57	21	41	.....	1,108

TABLE II.—*Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools—Continued.*

GRADED SCHOOLS—Continued.

School district.	Municipality.	Grade.								Enrollment.
		1	2	3	4	5	6	7	8	
15	Adjuntas	111	82	59	28	13	20	12		325
	Utuado	198	113	81	38	18	9	4		461
	District	309	195	140	66	31	29	16		786
16	Ciales	150	39	27	23	19				258
	Manatí	291	202	78	29		10	13		623
	Morovis	56		37	19					112
	District	497	241	142	71	19	10	13		993
17	Toa Alta	204	127	66	48	25	2			472
	Vega Baja	203	125	70	70	23		18		509
	District	407	252	136	118	48	2	18		981
18	Bayamón	448	213	124	56	20	21			882
	Viéques	114	52	48	25	16				255
	Total	8,708	5,691	3,575	2,214	1,113	595	341	111	22,348

RURAL SCHOOLS.

School district.	Municipality.	Grade.					Enrollment.
		1	2	3	4	5	
1	Carolina	491	286	54			831
	Rio Piedras	293	90	13			396
	San Juan	206	79				285
	District	990	455	67			1,512
2	Fajardo	268	119	52			439
	Naguabo	179	94	62			335
	Rio Grande	530	305	146	11	8	1,000
	District	977	518	260	11	8	1,774
3	Humacao	228	117	39			384
	San Lorenzo	358	129	11			498
	Yabucoa	266	94	5			365
	District	852	340	55			1,247
4	Aguas Buenas	192	36	23			251
	Caguas	471	183	20			674
	Cayey	440	150	38			628
	District	1,103	369	81			1,553
5	Guayama	439	158	28			625
	Patillas	195	92	8			295
	District	634	250	36			920
6	Aibonito	235	84	13	5		337
	Barros	467	214	78	10		769
	Comerio	295	76				371
	District	997	374	91	15		1,477
7	Coamo	523	202	88	9		822
	Juana Díaz	507	142	39			688
	Santa Isabel	94	34	1			129
	District	1,124	378	128	9		1,639
8	Ponce	1,294	482	202			1,978
9	Lajas	244	130	45			419
	Sabana Grande	247	99	34			380
	Yauco	509	164	73	6		752
	District	1,000	393	152	6		1,551

TABLE II.—*Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools—Continued.*

RURAL SCHOOLS—Continued.

School district.	Municipality.	Grade.					Enrollment.
		1	2	3	4	5	
10	Cabo Rojo	334	174	103	.....	.....	611
	Maricao	140	67	4	.....	.....	211
	San German	408	214	97	11	.....	730
	District	882	455	204	11	.....	1,552
11	Añasco	296	175	32	.....	.....	503
	Las Marias	349	90	.....	.....	.....	439
	Mayaguez	718	261	27	.....	.....	1,006
	District	1,363	526	59	.....	.....	1,948
12	Aguada	188	63	30	2	.....	283
	Aguadilla	580	283	177	.....	.....	1,040
	San Sebastian	448	159	80	3	.....	690
	District	1,216	505	287	5	.....	2,013
13	Camuy	295	189	127	17	2	690
	Isabela	271	148	109	16	.....	544
	District	566	337	236	33	2	1,174
14	Arecibo	887	271	73	10	.....	1,241
	Lares	389	130	66	4	.....	589
	District	1,276	401	139	14	.....	1,830
15	Adjuntas	234	129	70	.....	.....	433
	Utua	531	287	179	.....	.....	997
	District	765	416	249	.....	.....	1,430
16	Ciales	402	150	78	8	.....	638
	Manatí	476	170	55	11	.....	712
	Morovis	240	92	45	13	.....	390
	District	1,118	412	178	32	.....	1,740
17	Toa Alta	310	151	91	7	.....	559
	Vega Baja	314	148	90	.....	.....	552
	District	624	299	181	7	.....	1,111
18	Bayamón	1,063	415	165	.....	.....	1,643
	Vieques	167	37	13	.....	.....	217
	Total	18,011	7,362	2,783	143	10	28,309

COMMON SCHOOLS.

School district.	Municipality.	Grade.								Enrollment.
		1	2	3	4	5	6	7	8	
1	Carolina	645	358	110	26	22	12	4	5	1,182
	Rio Piedras	399	153	65	39	23	11	.....	.....	690
	San Juan	1,196	602	286	177	112	94	39	46	2,552
	District	2,240	1,113	461	242	157	117	43	51	4,424
2	Fajarda	569	311	181	73	42	33	25	2	1,236
	Naguabo	244	135	79	38	14	.....	.....	.....	510
	Rio Grande	719	388	224	84	36	14	.....	.....	1,465
	District	1,532	834	484	195	92	47	25	2	3,211
3	Humacao	513	274	104	36	28	27	15	.....	997
	San Lorenzo	497	268	126	45	5	.....	.....	.....	941
	Yabucoa	386	149	21	76	8	28	14	.....	682
	District	1,396	691	251	157	41	55	29	.....	2,620

TABLE II.—*Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools—Continued.*

COMMON SCHOOLS—Continued.

School district.	Municipality.	Grade.								Enrollment.
		1	2	3	4	5	6	7	8	
4	Agua Buena.....	218	58	37	15	.....	.....	.....	.....	328
	Caguas.....	772	418	141	42	41	24	18	.....	1,456
	Cayey.....	601	335	147	69	17	20	.....	.....	1,189
	District.....	1,591	811	325	126	58	44	18	.....	2,973
5	Guayama.....	781	402	223	85	50	39	.....	.....	1,580
	Patillas.....	258	127	21	.....	.....	.....	.....	.....	406
	District.....	1,039	529	244	85	50	39	.....	.....	1,986
6	Aibonito.....	377	136	55	23	20	.....	.....	.....	611
	Barros.....	589	262	96	24	10	7	.....	.....	938
	Comerio.....	386	98	21	27	5	.....	.....	.....	537
	District.....	1,302	496	172	74	35	7	.....	.....	2,086
7	Coamo.....	607	419	192	71	7	12	.....	.....	1,308
	Juana Diaz.....	586	266	97	24	22	18	.....	.....	1,013
	Santa Isabel.....	181	111	79	27	.....	.....	.....	.....	398
	District.....	1,374	796	368	122	29	30	.....	.....	2,719
8	Ponce.....	1,919	881	473	152	81	37	36	31	3,610
9	Lajas.....	281	159	45	23	.....	.....	.....	.....	508
	Sabana Grande.....	365	175	91	22	38	16	14	.....	721
	Yauco.....	685	275	235	64	79	14	14	.....	1,366
	District.....	1,331	609	371	109	117	30	28	.....	2,595
10	Cabo Rojo.....	439	229	164	83	19	.....	5	.....	939
	Maricao.....	232	98	35	7	.....	.....	.....	.....	372
	San Germán.....	523	350	208	78	62	18	18	.....	1,257
	District.....	1,194	677	407	168	81	18	23	.....	2,568
11	Añasco.....	439	307	100	59	18	15	4	.....	942
	Las Marias.....	400	117	18	15	.....	.....	.....	.....	550
	Mayaguez.....	1,023	632	211	111	61	17	26	27	2,108
	District.....	1,862	1,056	329	185	79	32	30	27	3,600
12	Aguaada.....	259	117	71	18	11	.....	.....	.....	476
	Aguaadilla.....	884	492	315	49	20	10	.....	.....	1,770
	San Sebastian.....	619	210	121	49	10	11	.....	.....	1,020
	District.....	1,762	819	507	116	41	21	.....	.....	3,266
13	Camuy.....	584	326	176	99	53	12	7	.....	1,257
	Isabela.....	330	207	137	37	18	23	14	.....	766
	District.....	914	533	313	136	71	35	21	.....	2,023
14	Arecibo.....	1,259	522	189	76	16	10	22	.....	2,094
	Lares.....	492	154	88	39	41	11	19	.....	844
	District.....	1,751	676	277	115	57	21	41	.....	2,938
15	Adjuntas.....	345	211	129	28	13	20	12	.....	758
	Utua.....	729	400	260	38	18	9	4	.....	1,458
	District.....	1,074	611	389	66	31	29	16	.....	2,216
16	Ciales.....	552	189	105	31	19	.....	.....	.....	896
	Manati.....	767	372	133	40	.....	10	13	.....	1,335
	Morovis.....	296	92	82	32	.....	.....	.....	.....	502
	District.....	1,615	653	320	103	19	10	13	.....	2,733
17	Toa Alta.....	514	278	157	55	25	2	.....	.....	1,031
	Vega Baja.....	517	273	160	70	23	.....	18	.....	1,061
	District.....	1,031	551	317	125	48	2	18	.....	2,092
18	Bayamón.....	1,511	628	289	56	20	21	.....	.....	2,525
	Vieques.....	281	89	61	25	16	.....	.....	.....	472
Total.....		26,719	13,053	6,358	2,357	1,123	595	341	111	50,657

TABLE II.—*Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools—Continued.*

SPECIAL SCHOOLS.

School district.	School and municipal.	Age (years).						Grade.								Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	1	2	3	4	9	10	11	12	
HIGH.																
1	San Juan.....				2	43	3					12	24	7	5	48
8	Ponce.....				4	22	1					15	12			27
11	Mayaguez.....				1	20						21				21
	Total.....				7	85	4					48	36	7	5	96
INDUSTRIAL.																
1	San Juan.....				6	100	13									119
8	Ponce.....			1	42	65	2									110
11	Mayaguez.....			1	29	107	14									151
14	Arecibo.....				15	102	18									135
	Total.....			2	92	374	47									515
NIGHT.																
1	San Juan.....		2	5	22	53	72									154
2	{ Fajardo.....			2	19	27	8									56
	{ Río Grande.....				19	19	38									57
	District.....			2	19	46	46									113
3	{ Humacao.....				8	28	7									43
	{ San Lorenzo.....				7	23	18									48
	District.....				15	51	25									91
4	Cayey.....			8	19	29	1									57
5	Guayama.....				19	45	23									87
7	{ Coamo.....				14	25	6									45
	{ Juana Diaz.....			7	16	20	6									49
	District.....			7	30	45	12									94
8	Ponce.....				8	165	26									190
10	San German.....				7	32	14									53
11	{ Añasco.....					48	13									61
	{ Mayaguez.....					58	8									66
	District.....					106	21									127
12	{ Aguadilla.....				12	36	20									68
	{ San Sebastian.....				8	26	13									47
	District.....				20	62	33									115
14	Lares.....				3	26	22									51
15	Utua.....					32	25									57
16	Manati.....				1	35	13									49
	Total.....		2	22	163	727	333									1,247
AGRICULTURAL.																
1	Carolina.....		5	10	12	12	1	22	13	4	1					40
3	{ Humacao.....		16	16	8	4		36	8							44
	{ San Lorenzo.....		9	23	16			29	11	8						48
	District.....		25	39	24	4		65	19	8						92
5	Guayama.....	2	13	18	9	2		38	6							44
6	Barros.....		7	14	40	17		31		27	20					78
8	Ponce.....				26				25	8						33

TABLE II.—*Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools—Continued.*

SPECIAL SCHOOLS—Continued.

School district.	School and municipal- ity.	Age (years).						Grade.								Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	1	2	3	4	9	10	11	12	
9	AGRICULTURAL—cont'd.															
	Lajas.....		7	25	21	1		43	11							54
	Sabana Grande.....		3	25	18	5		34	17							51
	District.....		10	50	39	6		77	28							105
10	Cabo Rojo.....		16	25	19	2		46	6	10						62
13	Camuy.....		8	8	19	8	1	16	11	12	5					44
15	Utua.....	1	3	21	27	8		49	11							60
17	Toa Alta.....		2	25	30	6	2	30	13	22						65
18	Bayamón.....		12	20	19	4		41	9	5						55
	Total.....	3	101	230	264	76	4	415	141	96	26					678
	KINDERGARTEN.															
1	San Juan.....	34	100													134
8	Ponce.....	3	57													60
	Total.....	37	157													194
	Grand totals	40	260	254	526	1,262	388									2,730

(Third term, 1903-4.)

GRADED SCHOOLS.

School district.	Municipality.	Grade.								Enrollment.
		1	2	3	4	5	6	7	8	
1	Carolina.....	148	65	52	23	21	11	3	5	328
	Rio Piedras.....	98	46	47	36	19	10			256
	San Juan.....	987	489	228	165	106	55	36	44	2,110
	District.....	1,233	600	327	224	146	76	39	49	2,694
2	Fajardo.....	262	152	160	74	44	27	23	5	747
	Naguabo.....	64	45	23	42	15				189
	Rio Grande.....	187	72	73	70	28	13			443
	District.....	513	269	256	186	87	40	23	5	1,379
3	Humacao.....	223	148	53	45	21	24	15		529
	San Lorenzo.....	137	131	90	45	4				407
	Yabucoa.....	96	61	16	71	8	24	13		289
	District.....	456	340	159	161	33	48	28		1,225
4	Agua Buenas.....	21	24	19	13					77
	Agua.....	309	219	92	38	42	23	19		742
	Cayey.....	164	172	102	57	16	19			530
	District.....	494	415	213	108	58	42	19		1,349
5	Guayama.....	330	233	174	84	47	42			910
	Patillas.....	62	31	12						105
	District.....	392	264	186	84	47	42			1,015
6	Aibonito.....	139	51	40	17	19				266
	Barros.....	76	48	18	14	10	7			173
	Comerio.....	77	35	21	23	8				164
	District.....	292	134	79	54	37	7			603

TABLE II.—*Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools—Continued.*

GRADED SCHOOLS—Continued.

School district.	Municipality.	Grade.								Enrollment.
		1	2	3	4	5	6	7	8	
7	Coamo	85	154	102	53	9	11	.....	.....	414
	Juana Diaz	79	118	58	25	21	18	.....	.....	319
	Santa Isabel	80	75	37	23	.....	.....	.....	.....	215
	District	244	347	197	101	30	29	.....	.....	948
8	Ponce	664	401	259	162	78	34	32	37	1,667
9	Lajas	21	29	13	14	6	.....	.....	.....	83
	Sabana Grande	116	74	49	27	33	14	13	.....	326
	Yauco	166	156	175	61	65	14	13	.....	650
	District	303	259	237	102	104	28	26	.....	1,059
10	Cabo Rojo	84	78	40	56	19	.....	5	.....	282
	Maricao	78	22	30	8	.....	.....	.....	.....	138
	San Germán	113	126	104	62	57	20	15	.....	497
	District	275	226	174	126	76	20	20	.....	917
11	Añasco	136	117	59	55	18	10	10	.....	445
	Las Marias	50	21	15	14	.....	.....	.....	.....	98
	Mayaguez	258	344	141	116	57	14	26	23	979
	District	444	482	213	185	75	24	36	23	1,482
12	Aguada	73	54	41	15	16	.....	.....	.....	199
	Agüadilla	323	220	144	51	13	16	.....	.....	767
	San Sebastián	168	63	45	18	28	10	11	.....	343
	District	564	337	230	84	57	26	11	.....	1,309
13	Camuy	230	121	62	64	51	11	7	.....	555
	Isabela	72	44	33	18	21	19	12	.....	199
	District	291	165	95	82	72	30	19	.....	754
14	Arecibo	340	221	154	66	16	9	.....	23	829
	Lares	89	25	21	39	43	11	18	.....	246
	District	429	246	175	105	59	20	18	23	1,075
15	Adjuntas	93	90	46	31	14	22	14	.....	310
	Utüado	186	133	115	72	20	9	3	.....	538
	District	279	223	161	103	34	31	17	.....	848
16	Ciales	148	39	15	23	17	.....	.....	.....	242
	Manatí	250	169	74	28	.....	10	12	.....	552
	Morovis	54	.....	38	19	.....	.....	.....	.....	111
	District	461	208	127	70	17	10	12	.....	905
17	Toa Alta	199	122	56	39	29	10	.....	.....	455
	Vega Baja	186	115	64	60	21	.....	15	.....	461
	District	385	237	120	99	50	10	15	.....	916
18	Bayamón	420	207	117	53	17	19	.....	.....	833
	Vieques	102	45	38	24	13	.....	.....	.....	222
	Total	8,241	5,405	3,363	2,113	1,090	536	315	137	21,200

TABLE II.—*Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools—Continued.*

RURAL SCHOOLS.

School district.	Municipality.	Grade.					Enrollment.
		1	2	3	4	5	
1	Carolina	452	252	65			769
	Rio Piedras	278	71	20			369
	San Juan	111	157				268
	District	841	480	85			1,406
2	Fajardo	232	144	46	9		431
	Naguabo	175	86	58			319
	Rio Grande	508	316	123	16	6	969
	District	915	546	227	25	6	1,719
3	Humacao	210	101	55			366
	San Lorenzo	326	120	11			457
	Yabucoa	259	88	30			377
	District	795	309	96			1,200
4	Aguas Buenas	201	34	22			257
	Caguas	491	207	21	6		725
	Cayey	428	151	31			610
	District	1,120	392	74	6		1,592
5	Guayama	425	158	35			618
	Patillas	184	96	11			291
	District	609	254	46			909
6	Aibonito	210	103	29	27		369
	Barros	440	209	99	15	4	767
	Comerio	271	82	13			366
	District	921	394	141	42	4	1,502
7	Coamo	485	221	104	8		818
	Juana Diaz	506	136	25			667
	Santa Isabel	109	36				145
	District	1,100	393	129	8		1,630
8	Ponce	1,216	582	222	5		2,025
9	Lajas	273	132	26			431
	Sabana Grande	220	88	24			327
	Yauco	391	175	77	17		660
	District	884	390	127	17		1,418
10	Cabo Rojo	306	177	115			598
	Maricao	141	46	2			189
	San Germán	381	198	104	15		698
	District	828	421	221	15		1,485
11	Añasco	261	166	32			459
	Las Marias	281	66	8			355
	Mayaguez	669	229	29			927
	District	1,211	461	69			1,741
12	Aguada	193	72	35			300
	Aguadilla	597	297	183	5		1,082
	San Sebastian	465	160	99			724
	District	1,255	529	317	5		2,106
13	Camuy	311	174	133	17		635
	Isabela	259	140	110	24		533
	District	570	314	243	41		1,168
14	Arecibo	792	272	69	10		1,143
	Lares	337	121	58	4		520
	District	1,129	393	127	14		1,665

TABLE II.—*Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools—Continued.*

RURAL SCHOOLS—Continued.

School district.	Municipality.	Grade.					Enroll-ment.
		1	2	3	4	5	
15	Adjuntas	243	113	62	.....	.....	418
	Utuado	429	306	198	17	.....	950
	District	672	419	260	17	.....	1,368
16	Ciales	368	162	75	8	.....	613
	Manatí	426	161	74	12	10	683
	Morovis	247	90	41	12	.....	390
	District	1,041	413	190	32	10	1,686
17	Toa Alta	280	138	89	7	.....	514
	Vega Baja	274	143	102	12	.....	531
	District	554	281	191	19	.....	1,045
18	Bayamón	1,142	426	141	.....	.....	1,709
	Vieques	158	48	10	.....	.....	216
	Total	16,961	7,445	2,916	246	20	27,588

COMMON SCHOOLS.

School district.	Municipality.	Grade.								Enroll-ment.
		1	2	3	4	5	6	7	8	
1	Carolina	600	317	117	23	21	11	3	5	1,097
	Rio Piedras	376	117	67	36	19	10	.....	.....	625
	San Juan	1,098	646	228	165	106	55	36	44	2,378
	District	2,074	1,080	412	224	146	76	39	49	4,100
2	Fajardo	494	296	206	83	44	27	23	5	1,178
	Naguabo	239	131	81	42	15	.....	.....	.....	508
	Rio Grande	695	388	196	86	34	13	.....	.....	1,412
	District	1,428	815	483	211	93	40	23	5	3,098
3	Humacao	433	249	108	45	21	24	15	.....	895
	San Lorenzo	463	251	101	45	4	.....	.....	.....	864
	Yabucoa	355	149	46	71	8	24	13	.....	666
	District	1,251	649	255	161	33	48	28	.....	2,425
4	Aguas Buenas	222	58	41	13	.....	.....	.....	.....	334
	Caguas	800	426	113	44	42	23	19	.....	1,467
	Cayey	592	323	133	57	16	19	.....	.....	1,140
	District	1,614	807	287	114	58	42	19	.....	2,914
5	Guayama	755	391	209	84	47	42	.....	.....	1,528
	Patillas	246	127	23	.....	.....	.....	.....	.....	396
	District	1,001	518	232	84	47	42	.....	.....	1,924
6	Aibonito	349	154	69	44	19	.....	.....	.....	635
	Barros	516	257	117	29	14	7	.....	.....	940
	Comerio	348	117	34	23	8	.....	.....	.....	530
	District	1,213	528	220	96	41	7	.....	.....	2,105
7	Coamo	570	375	206	61	9	11	.....	.....	1,232
	Juana Díaz	585	254	83	25	21	18	.....	.....	986
	Santa Isabel	189	111	37	23	.....	.....	.....	.....	360
	District	1,344	740	326	109	30	29	.....	.....	2,578
8	Ponce	1,880	983	481	167	78	34	32	37	3,692
9	Lajas	294	161	39	14	6	.....	.....	.....	514
	Sabana Grande	336	157	73	27	33	14	13	.....	653
	Yauco	557	331	252	78	65	14	13	.....	1,310
	District	1,187	649	364	119	104	28	26	.....	2,477

TABLE II.—*Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools—Continued.*

COMMON SCHOOLS—Continued.

School district.	Municipality.	Grade.								Enrollment.
		1	2	3	4	5	6	7	8	
10	Cabo Rojo.....	390	255	155	56	19		5		880
	Maricao.....	219	68	32	8					327
	San Germán.....	494	324	208	77	57	20	15		1,195
	District.....	1,103	647	395	141	76	20	20		2,402
11	Añasco.....	397	283	91	55	18	10	10		864
	Las Marias.....	331	87	21	14					453
	Mayaguez.....	927	573	170	116	57	14	26	23	1,906
	District.....	1,655	943	282	185	75	24	36	23	3,223
12	Aguada.....	266	126	76	15	16				499
	Aguadilla.....	920	517	327	56	13	16			1,849
	San Sebastian.....	633	223	144	18	28	10	11		1,067
	District.....	1,819	866	547	89	57	26	11		3,415
13	Camuy.....	550	295	195	81	51	11	7		1,190
	Isabela.....	311	184	143	42	21	19	12		730
	District.....	861	479	338	123	72	30	19		1,922
14	Arecibo.....	1,132	493	223	76	16	9		23	1,972
	Lares.....	426	146	79	43	43	11	18		766
	District.....	1,558	639	302	119	59	20	18	23	2,738
15	Adjuntas.....	336	203	108	31	14	22	14		728
	Utua.....	615	439	313	89	20	9	3		1,488
	District.....	951	642	421	120	34	31	17		2,216
16	Ciales.....	516	201	90	31	17				855
	Manatí.....	685	330	148	40	10	10	12		1,235
	Morovis.....	301	90	79	31					501
	District.....	1,502	621	317	102	27	10	12		2,591
17	Toa Alta.....	479	260	145	46	29	10			969
	Vega Baja.....	460	258	166	72	21		15		992
	District.....	939	518	311	118	50	10	15		1,961
18	Bayamón.....	1,562	633	258	53	17	19			2,542
	Vieques.....	260	93	48	24	13				438
	Total.....	25,202	12,850	6,279	2,359	1,110	536	315	137	48,788

SPECIAL SCHOOLS.

School district.	Municipality.	Age (years).						Grade.								Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	1	2	3	4	9	10	11	12	
1 8 11	HIGH.															
	San Juan.....				3	40	2					13	22	4	6	45
	Ponce.....				4	21	1					14	12			26
	Mayaguez.....					16						16				16
	Total.....				7	77	3					43	34	4	6	87
1 8 11 14	INDUSTRIAL.															
	San Juan.....				5	56	54									115
	Ponce.....				1	44	65	2								112
	Mayaguez.....				1	34	94	14								143
	Arecibo.....				16	84	16									116
	Total.....				2	99	299	86								486

TABLE II.—*Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools—Continued.*

(School year 1903-4.)

GRADED SCHOOLS.

School district.	Municipality.	Grade.								Enrollment.
		1	2	3	4	5	6	7	8	
1	Carolina	197	81	67	26	30	15	6	8	430
	Rio Piedras	157	78	52	53	34	10	.....	.....	384
	San Juan	1,245	678	312	266	178	65	43	56	2,843
	District	1,599	837	431	345	242	90	49	64	3,657
2	Fajardo	344	180	191	94	56	33	27	5	930
	Naguabo	86	48	35	48	15	.....	.....	.....	232
	Rio Grande	251	119	92	76	30	14	.....	.....	582
	District	681	347	318	218	101	47	27	5	1,744
3	Humacao	361	158	93	45	30	28	15	.....	730
	San Lorenzo	198	185	159	59	8	.....	.....	.....	609
	Yabucoa	137	66	20	83	8	25	18	.....	357
	District	696	409	272	187	46	53	33	.....	1,696
4	Agua Buenas	28	30	27	16	.....	.....	.....	.....	101
	Caguas	378	267	140	46	50	24	20	.....	925
	Cayey	252	221	143	74	19	22	.....	.....	731
	District	658	518	310	136	69	46	20	.....	1,757
5	Guayama	389	286	224	88	56	43	.....	.....	1,086
	Patillas	82	35	16	.....	.....	.....	.....	.....	133
	District	471	321	240	88	56	43	.....	.....	1,219
6	Aibonito	207	88	63	19	26	.....	.....	.....	403
	Barros	95	84	28	14	11	7	.....	.....	239
	Comerio	90	42	28	30	15	.....	.....	.....	205
	District	392	214	119	63	52	7	.....	.....	847
7	Coamo	91	233	118	66	8	12	.....	.....	528
	Juana Diaz	102	131	63	26	27	18	.....	.....	367
	Santa Isabel	95	80	78	34	.....	.....	.....	.....	287
	District	288	444	259	126	35	30	.....	.....	1,182
8	Ponce	724	505	295	172	87	42	46	39	1,910
9	Lajas	42	30	13	22	6	.....	.....	.....	113
	Sabana Grande	129	80	58	28	43	15	16	.....	369
	Yauco	212	189	195	68	85	17	16	.....	782
	District	383	299	266	118	134	32	32	.....	1,264
10	Cabo Rojo	143	136	67	82	23	.....	8	.....	459
	Maricao	111	60	50	8	.....	.....	.....	.....	229
	San Germán	138	151	126	77	68	23	19	.....	602
	District	392	347	243	167	91	23	27	.....	1,290
11	Añasco	149	135	78	68	18	10	10	.....	468
	Las Marias	69	32	17	15	.....	.....	.....	.....	133
	Mayaguez	368	597	357	149	95	20	33	28	1,647
	District	586	764	452	232	113	30	43	28	2,248
12	Aguaada	73	58	41	15	12	.....	.....	.....	199
	Aguaadilla	323	220	144	51	13	16	.....	.....	767
	San Sebastian	168	63	45	18	28	10	11	.....	343
	District	564	341	230	84	53	26	11	.....	1,309
13	Camuy	334	173	91	100	71	15	8	.....	792
	Isabela	72	119	36	18	21	23	13	.....	302
	District	406	292	127	118	92	38	21	.....	1,094
14	Arecibo	393	254	189	99	24	9	17	23	1,008
	Lares	152	42	27	50	43	11	20	.....	345
	District	545	296	216	149	67	20	37	23	1,353

TABLE II.—*Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools—Continued.*

GRADED SCHOOLS—Continued.

School district.	Municipality.	Grade.								Enroll-ment.
		1	2	3	4	5	6	7	8	
15	Adjuntas	153	106	63	41	19	27	15	.....	424
	Utuaado	244	150	111	93	22	12	5	.....	637
	District	397	256	174	134	41	39	20	.....	1,061
16	Ciales	205	69	30	23	19	.....	.....	.....	346
	Manati	322	221	82	34	11	16	.....	.....	686
	Morovis	60	17	43	22	.....	.....	.....	.....	142
	District	587	307	155	79	30	16	.....	.....	1,174
17	Toa Alta	262	205	96	47	35	11	.....	.....	656
	Vega Baja	256	141	79	85	35	.....	18	.....	614
	District	518	346	175	132	70	11	18	.....	1,270
18	Bayamón	608	246	145	81	22	20	.....	.....	1,122
	Vieques	158	88	87	33	17	.....	.....	.....	383
	Total	10,653	7,177	4,514	2,662	1,418	613	384	159	27,580

RURAL SCHOOLS.

School district.	Municipality.	Grade.					Enroll-ment.
		1	2	3	4	5	
1	Carolina	562	294	80	.....	.....	936
	Rio Piedras	334	114	26	.....	.....	474
	San Juan	278	135	.....	.....	.....	413
	District	1,174	543	106	.....	.....	1,823
2	Fajardo	245	186	49	9	.....	489
	Naguabo	189	93	62	.....	.....	344
	Rio Grande	608	320	149	18	7	1,102
	District	1,042	599	260	27	7	1,935
3	Humacao	240	125	46	.....	.....	411
	San Lorenzo	456	146	12	.....	.....	614
	Yabucoa	273	92	30	.....	.....	395
	District	969	363	88	.....	.....	1,420
4	Agua8 Buenas	228	40	27	.....	.....	295
	Caguas	592	247	21	6	.....	866
	Cayey	562	183	31	.....	.....	776
	District	1,382	470	79	6	.....	1,937
5	Guayama	518	166	43	.....	.....	727
	Patillas	197	111	9	.....	.....	317
	District	715	277	52	.....	.....	1,044
6	Aibonito	229	113	30	22	.....	394
	Barros	492	234	105	15	4	850
	Comerio	277	86	13	.....	.....	376
	District	998	433	148	37	4	1,620
7	Coamo	550	272	126	9	.....	957
	Juana Diaz	581	152	43	.....	.....	776
	Santa Isabel	172	56	12	.....	.....	240
	District	1,303	480	181	9	.....	1,973
8	Ponce	1,554	596	214	5	.....	2,369

TABLE II.—*Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools—Continued.*

RURAL SCHOOLS—Continued.

School district.	Municipality.	Grade.					Enrollment.
		1	2	3	4	5	
9	Lajas	300	139	38	.....	.....	477
	Sabana Grande	271	111	33	.....	.....	415
	Yauco	512	217	81	6	.....	816
	District	1,083	467	152	6	.....	1,708
10	Cabo Rojo	351	191	131	.....	.....	673
	Maricao	151	65	8	.....	.....	224
	San Germán	417	220	104	15	.....	756
	District	919	476	243	15	.....	1,653
11	Añasco	310	201	39	.....	.....	550
	Las Marias	375	108	6	.....	.....	489
	Mayaguez	953	345	36	.....	.....	1,334
	District	1,638	654	81	.....	.....	2,373
12	Aguada	193	72	35	.....	.....	300
	Aguadilla	621	309	180	5	.....	1,115
	San Sebastian	423	202	96	3	.....	724
	District	1,237	583	311	8	.....	2,139
13	Camuy	301	187	137	17	.....	642
	Isabela	331	202	116	25	.....	674
	District	632	389	253	42	.....	1,316
14	Arecibo	993	323	100	13	.....	1,429
	Lares	435	140	71	4	.....	650
	District	1,428	463	171	17	.....	2,079
15	Adjuntas	265	134	77	.....	.....	476
	Utuado	582	322	228	3	.....	1,135
	District	847	456	305	3	.....	1,611
16	Ciales	491	184	83	8	.....	766
	Manatí	535	182	87	14	10	828
	Morovis	293	96	45	13	.....	447
	District	1,319	462	215	35	10	2,041
17	Toa Alta	322	158	105	11	.....	596
	Vega Baja	304	160	112	12	.....	588
	District	626	318	217	23	.....	1,184
18	Bayamón	1,289	496	175	.....	.....	1,960
	Vieques	227	50	4	.....	.....	281
	District	1,516	546	179	.....	.....	2,241
	Total	20,382	8,575	3,255	233	21	32,466

COMMON SCHOOLS.

School district.	Municipality.	Grade.								Enrollment.
		1	2	3	4	5	6	7	8	
1	Carolina	759	375	147	26	30	15	6	8	1,366
	Rio Piedras	491	192	78	53	34	10	.....	.....	858
	San Juan	1,523	813	312	266	178	65	43	56	3,256
	District	2,773	1,380	537	345	242	90	49	64	5,480
2	Fajardo	589	366	240	103	56	33	27	5	1,419
	Naguabo	275	141	97	48	15	.....	.....	.....	576
	Rio Grande	859	439	241	94	37	14	.....	.....	1,684
	District	1,723	946	578	245	108	47	27	5	3,679

TABLE II.—*Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools—Continued.*

COMMON SCHOOLS—Continued.

School district.	Municipality.	Grade.								Enrollment.
		1	2	3	4	5	6	7	8	
3	Humacao	601	283	139	45	30	28	15	.....	1,141
	San Lorenzo	654	331	171	59	8	.....	.....	.....	1,223
	Yabucoa	410	158	50	83	8	25	18	.....	752
	District	1,665	772	360	187	46	53	33	.....	3,116
4	Aguas Buenas	256	70	54	16	.....	.....	.....	.....	396
	Caguas	970	514	161	52	50	24	20	.....	1,791
	Cayey	814	404	174	74	19	22	.....	.....	1,507
	District	2,040	988	389	142	69	46	20	.....	3,694
5	Guayama	907	452	267	88	56	43	.....	.....	1,813
	Patillas	279	146	25	.....	.....	.....	.....	.....	450
	District	1,186	598	292	88	56	43	.....	.....	2,263
6	Aibonito	436	201	93	41	26	.....	.....	.....	797
	Barros	587	318	133	29	15	7	.....	.....	1,089
	Comerio	367	128	41	30	15	.....	.....	.....	581
	District	1,390	647	267	100	56	7	.....	.....	2,467
7	Coamo	641	505	244	75	8	12	.....	.....	1,485
	Juana Diaz	683	283	106	26	27	18	.....	.....	1,143
	Santa Isabel	267	136	90	34	.....	.....	.....	.....	527
	District	1,591	924	440	135	35	30	.....	.....	3,155
8	Ponce	2,278	1,101	509	177	87	42	46	39	4,279
9	Lajas	342	169	51	22	6	.....	.....	.....	590
	Sabana Grande	400	191	91	28	43	15	16	.....	784
	Yauco	724	406	276	74	85	17	16	.....	1,598
	District	1,466	766	418	124	134	32	32	.....	2,972
10	Cabo Rojo	494	327	198	82	23	.....	8	.....	1,132
	Maricao	262	125	58	8	.....	.....	.....	.....	453
	San Germán	555	371	230	92	68	23	19	.....	1,358
	District	1,311	823	486	182	91	23	27	.....	2,943
11	Añasco	459	336	117	68	18	10	10	.....	1,018
	Las Marias	444	140	23	15	.....	.....	.....	.....	622
	Mayaguez	1,321	942	393	149	95	20	33	28	2,981
	District	2,224	1,418	533	232	113	30	43	28	4,621
12	Aguada	266	130	76	15	12	.....	.....	.....	499
	Aguadilla	944	529	324	56	13	16	.....	.....	1,882
	San Sebastian	591	265	141	21	28	10	11	.....	1,067
	District	1,801	924	541	92	53	26	11	.....	3,448
13	Camuy	635	360	228	117	71	15	8	.....	1,434
	Isabela	403	321	152	43	21	23	13	.....	976
	District	1,038	681	380	160	92	38	21	.....	2,410
14	Arecibo	1,386	577	289	112	24	9	17	23	2,437
	Lares	587	182	98	54	43	11	20	.....	995
	District	1,973	759	387	166	67	20	37	23	3,432
15	Adjuntas	418	240	140	41	19	27	15	.....	900
	Utua	826	472	339	96	22	12	5	.....	1,772
	District	1,244	712	479	137	41	39	20	.....	2,672
16	Ciales	696	253	113	31	19	.....	.....	.....	1,112
	Manati	857	403	169	48	21	16	.....	.....	1,514
	Morovis	353	113	88	35	.....	.....	.....	.....	589
	District	1,906	769	370	114	40	16	.....	.....	3,215

TABLE II.—*Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools—Continued.*

SPECIAL SCHOOLS—Continued.

School district.	Kind and location.	Age (years).						Grade.								Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	1	2	3	4	9	10	11	12	
	NIGHT—continued.															
14	Lares.....				5	39	44									88
15	Utua.....					37	40									77
16	Manatí.....				1	49	24									74
	Total.....		4	40	212	1,001	489									1,746
	AGRICULTURAL.															
1	Carolina.....		7	14	17	14	1	32	15	6						53
	Humacao.....		46	49	25	12		107	25							132
3	San Lorenzo.....		8	21	16			27	11	7						45
	District.....		54	70	41	12		134	36	7						177
5	Guayama.....	3	14	21	10	3		45	6							51
6	Barros.....		8	17	45	18		28	11	28	21					88
8	Ponce.....				26	8		24	10							34
	Lajas.....		7	23	18	11		30	18	11						59
9	Sabana Grande.....		3	26	20	5		37	17							54
	District.....		10	49	38	16		67	35	11						113
10	Cabo Rojo.....		20	30	23	3		56	10	10						76
13	Camuy.....	8	8	19	8	1		16	11	12	5					44
15	Utua.....		7	25	31	7		59	11							70
17	Toa Alta.....		3	27	34	9	3	35	18	23						76
18	Bayamón.....		13	27	23	8		52	12	7						71
	Total.....	11	144	299	296	99	4	524	189	114	26					853
	KINDERGARTEN.															
1	San Juan.....	52	79													131
8	Ponce.....	6	58													64
	Total.....	58	137													195
	Grand total.....	69	285	341	622	1,586	607									3,510

TABLE III.—*Distribution (pupils) by age, common schools, and special schools.*

(First term, 1903-4.)

GRADED SCHOOLS.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
	Carolina.....		70	149	111	71	2	403
	Rio Piedras.....		47	102	148	69		366
1	San Juan.....	1	301	776	941	354	1	2,374
	District.....	1	418	1,027	1,200	494	3	3,143
	Fajardo.....		81	257	319	111	8	776
	Naguabo.....		36	65	78	23		202
2	Rio Grande.....	2	62	196	179	68	4	511
	District.....	2	179	518	576	202	12	1,489

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

GRADED SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
3	Humacao	18	99	217	166	34	.....	534
	San Lorenzo	1	76	203	102	13	.....	395
	Yabucoa	1	40	108	108	36	1	294
	District	20	215	528	376	83	1	1,223
4	Aguas Buenas .....	.....	29	63	54	12	.....	158
	Caguas .....	.....	104	280	229	82	.....	695
	Cayey .....	.....	49	193	217	79	.....	538
	District .....	.....	182	536	500	173	.....	1,391
5	Guayama .....	.....	62	393	387	103	.....	945
	Patillas .....	.....	21	51	47	3	.....	122
	District .....	.....	83	444	434	106	.....	1,067
6	Aibonito .....	.....	42	151	93	20	.....	306
	Barros	1	35	78	62	28	.....	204
	Comerio .....	.....	21	75	52	24	.....	172
	District	1	98	304	207	72	.....	682
7	Coamo .....	.....	55	181	156	56	.....	448
	Juana Diaz .....	.....	33	123	137	41	.....	334
	Santa Isabel .....	.....	25	67	42	18	.....	152
	District .....	.....	113	371	335	115	.....	934
8	Ponce .....	.....	125	663	729	305	9	1,831
9	Lajas .....	.....	13	37	34	11	.....	95
	Sabana Grande .....	.....	36	97	124	75	.....	332
	Yauco .....	.....	76	258	260	115	3	712
	District .....	.....	125	392	418	201	3	1,139
10	Cabo Rojo .....	.....	39	116	97	48	1	301
	Maricao	1	27	64	56	15	1	164
	San Germán .....	.....	41	160	207	113	2	523
	District	1	107	340	360	176	4	988
11	Añasco	1	47	153	169	33	.....	403
	Las Marias .....	.....	20	33	21	6	.....	80
	Mayaguez .....	.....	155	413	473	132	1	1,174
	District	1	222	599	663	171	1	1,657
12	Aguada .....	.....	39	64	52	17	1	173
	Aguadilla .....	.....	60	254	245	68	.....	627
	San Sebastian .....	.....	85	107	72	10	.....	274
	District .....	.....	184	425	369	95	1	1,074
13	Camuy .....	.....	145	220	192	87	.....	644
	Isabela .....	.....	33	74	87	37	.....	231
	District .....	.....	178	294	279	124	.....	875
14	Arecibo	5	95	346	334	116	1	897
	Lares .....	.....	33	76	91	63	3	266
	District	5	128	422	425	179	4	1,163
15	Adjuntas	2	64	104	84	59	.....	313
	Utua .....	.....	86	185	170	36	.....	477
	District	2	150	289	254	95	.....	790
16	Ciales .....	.....	70	86	59	20	.....	235
	Manati .....	.....	66	222	226	59	.....	573
	Morovis .....	.....	33	59	38	13	.....	143
	District .....	.....	169	367	323	92	.....	951

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

GRADED SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
17	Toa Alta	10	147	190	154	26	.....	527
	Vega Baja	1	164	171	143	48	.....	527
	District	11	311	361	297	74	.....	1,054
18	Bayamón	3	232	358	298	81	.....	972
	Vieques .....	.....	41	105	90	29	.....	265
	Total	47	3,260	8,343	8,133	2,867	38	22,688

RURAL SCHOOLS.

1	Carolina	1	167	315	253	66	.....	802
	Rio Piedras .....	.....	83	166	115	33	.....	397
	San Juan .....	.....	43	102	67	15	137	364
	District	1	293	583	435	114	137	1,563
2	Fajardo .....	.....	86	180	125	36	1	428
	Naguabo .....	.....	40	133	88	39	.....	300
	Rio Grande	3	166	402	333	97	.....	1,001
	District	3	292	715	546	172	1	1,729
3	Humacao .....	.....	54	169	117	39	.....	379
	San Lorenzo	3	115	186	100	20	.....	424
	Yabucoa	1	89	146	95	13	.....	344
	District	4	258	501	312	72	.....	1,147
4	Aguas Buenas .....	.....	44	99	78	4	.....	225
	Caguas	9	117	294	200	26	.....	646
	Cayey	8	114	248	207	34	.....	611
	District	17	275	641	485	64	.....	1,482
5	Guayama .....	.....	125	260	174	31	.....	590
	Patillas .....	.....	77	109	62	12	.....	260
	District .....	.....	202	369	236	43	.....	850
6	Aibonito .....	.....	43	119	93	29	.....	284
	Barros .....	.....	85	259	211	68	1	624
	Comerio	14	90	149	86	7	.....	346
	District	14	218	527	390	104	1	1,254
7	Coamo .....	.....	78	349	363	82	.....	872
	Juana Díaz .....	.....	107	288	221	50	.....	666
	Santa Isabel	3	42	80	59	20	.....	204
	District	3	227	717	643	152	.....	1,742
8	Ponce .....	.....	247	744	649	130	.....	1,770
9	Lajas	2	46	160	152	60	.....	420
	Sabana Grande .....	.....	50	181	127	25	.....	383
	Yauco	4	87	275	225	73	.....	664
	District	6	183	616	504	158	.....	1,467
10	Cabo Rojo .....	.....	120	219	191	46	.....	576
	Maricao	1	23	34	19	5	.....	82
	San German	8	109	193	176	62	.....	548
	District	9	252	446	386	113	.....	1,206
11	Añasco .....	.....	76	158	134	26	.....	394
	Las Marias	7	60	69	58	11	.....	205
	Mayaguez .....	.....	136	348	264	68	.....	816
	District	7	272	575	456	105	.....	1,415

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

RURAL SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
12	Aguada		41	108	66	21		236
	Aguadilla		154	405	313	103	1	976
	San Sebastian	2	128	241	175	37		583
	District	2	323	754	554	161	1	1,795
13	Camuy		99	227	195	54		575
	Isabela		82	191	168	60		501
	District		181	418	363	114		1,076
14	Arecibo	1	167	454	384	115	2	1,123
	Lares	2	80	182	136	40		440
	District	3	247	636	520	155	2	1,563
15	Adjuntas		73	164	103	28	1	369
	Utua		154	276	206	75		711
	District		227	440	309	103	1	1,080
16	Ciales	1	86	173	138	34	1	433
	Manati	1	112	269	187	49		618
	Morovis		54	161	121	42	1	379
	District	2	252	603	446	125	2	1,430
17	Toa Alta		74	246	186	39		545
	Vega Baja		137	239	141	27		544
	District		211	485	327	66		1,089
18	Bayamón	8	290	629	516	140	1	1,584
	Vieques		50	144	43	7		244
	Total	79	4,500	10,543	8,120	2,098	146	25,486

COMMON SCHOOLS.

1	Carolina	1	237	464	364	137	2	1,205
	Río Piedras		130	268	263	102		763
	San Juan	1	344	878	1,008	369	138	2,738
	District	2	711	1,610	1,635	608	140	4,706
2	Fajardo		167	437	444	147	9	1,204
	Naguabo		76	198	166	62		502
	Río Grande	5	228	598	512	165	4	1,512
	District	5	471	1,233	1,122	374	13	3,218
3	Humacao	18	153	386	283	73		913
	San Lorenzo	4	191	389	202	33		819
	Yabucoa	2	129	254	203	49	1	638
	District	24	473	1,029	688	155	1	2,370
4	Aguas Buenas		73	162	132	16		383
	Caguas	9	221	574	429	108		1,341
	Cayey	8	163	441	424	113		1,149
	District	17	457	1,177	985	237		2,873
5	Guayama		187	653	561	134		1,535
	Patillas		98	160	109	15		382
	District		285	813	670	149		1,917
6	Aibonito		85	270	186	49		590
	Barros	1	120	337	273	96	1	828
	Comerio	14	111	224	138	31		518
	District	15	316	831	597	176	1	1,936

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*
SPECIAL SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
3	Humacao		13	17	10	22	10	72
	San Lorenzo		9	23	18	20	37	107
	District		22	40	28	42	47	179
4	Cayey			6	17	23	2	48
5	Guayama		10	13	12	33	18	86
6	Barros		8	17	43	11		79
7	Coamo				10	24	6	40
	Juana Diaz			4	14	30	9	57
	District			4	24	54	15	97
8	Ponce	5	55	1	62	164	26	313
9	Lajas		7	25	24	1		57
	Sabana Grande		2	25	20	5		52
	District		9	50	44	6		109
10	Cabo Rojo		12	23	21	2		58
	San German				3	43	28	74
	District		12	23	24	45	28	132
11	Añasco					25	6	31
	Mayaguez				15	155	32	202
	District				15	180	38	233
12	Aguadilla				9	30	14	53
	San Sebastian				7	20	9	36
	District				16	50	23	89
13	Camuy		8	8	17	7	1	41
14	Lares				5	30	39	74
15	Utua	1	5	23	29	40	25	123
16	Manati					24	16	40
17	Toa Alta		2	27	30	9	3	71
18	Bayamón		9	24	17	8		58
	Total	56	221	261	442	984	421	2,385

COMMON AND SPECIAL SCHOOLS.

1	Carolina	1	240	476	379	151	3	1,250
	Rio Piedras		130	268	263	102		763
	San Juan	51	421	888	1,032	565	228	3,185
	District	52	791	1,632	1,674	818	231	5,198
2	Fajardo		168	440	464	177	17	1,266
	Naguabo		76	198	166	62		502
	Rio Grande	5	228	598	512	183	45	1,571
	District	5	472	1,236	1,142	422	62	3,339
3	Humacao	18	166	403	293	95	10	985
	San Lorenzo	4	200	412	220	53	37	926
	Yabucoa	2	129	254	203	49	1	638
	District	24	495	1,069	716	197	48	2,549
4	Aguas Buenas		73	162	132	16		383
	Caguas	9	221	574	429	108		1,341
	Cayey	8	163	447	441	136	2	1,197
	District	17	457	1,183	1,002	260	2	2,921
5	Guayama		197	666	573	167	18	1,621
	Patillas		98	160	109	15		382
	District		295	826	682	182	18	2,003

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

COMMON AND SPECIAL SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
6	Aibonito		85	270	186	49		590
	Barros	1	128	354	316	107	1	907
	Comerio	14	111	224	138	31		518
	District	15	324	848	640	187	1	2,015
7	Coamo		133	530	529	162	6	1,360
	Juana Diaz		140	415	372	121	9	1,057
	Santa Isabel	3	67	147	101	38		356
	District	3	340	1,092	1,002	321	15	2,773
8	Ponce	5	427	1,408	1,440	599	35	3,914
9	Lajas	2	66	222	210	72		572
	Sabana Grande		88	303	271	105		767
	Yauco	4	163	533	485	188	3	1,376
	District	6	317	1,058	966	365	3	2,715
10	Cabo Rojo		171	358	309	96	1	935
	Maricao	2	50	98	75	20	1	246
	San Germán	8	150	353	386	218	30	1,145
	District	10	371	809	770	334	32	2,326
11	Añasco	1	123	311	303	84	6	828
	Las Marias	7	80	102	79	17		285
	Mayaguez		291	761	752	355	33	2,192
	District	8	494	1,174	1,134	456	39	3,305
12	Aguada		80	172	118	38	1	409
	Aguadilla		214	659	567	201	15	1,656
	San Sebastian	2	214	348	254	67	9	893
	District	2	507	1,179	939	306	25	2,958
13	Camuy		252	455	404	148	1	1,260
	Isabela		115	265	255	97		732
	District		367	720	659	245	1	1,992
14	Arecibo	6	262	800	718	231	3	2,020
	Lares	2	113	258	232	133	42	780
	District	8	375	1,058	950	364	45	2,800
15	Adjuntas	2	137	268	187	87	1	682
	Utuaado	1	245	484	405	151	25	1,311
	District	3	382	752	592	238	26	1,993
16	Ciales	1	156	259	197	54	1	668
	Manati	1	178	491	413	132	16	1,231
	Morovis		87	220	159	55	1	522
	District	2	421	970	769	241	18	2,421
17	Toa Alta	10	223	463	370	74	3	1,143
	Vega Baja	1	301	410	284	75		1,071
	District	11	524	873	654	149	3	2,214
18	Bayamón	11	531	1,011	831	229	1	2,614
	Vieques		91	249	133	36		509
	Total	182	7,981	19,147	16,695	5,949	605	50,559

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

(Second term, 1903-4.)

GRADED SCHOOLS.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
1	Carolina		54	137	100	58	2	351
	Rio Piedras		17	53	164	60		294
	San Juan		299	765	871	332		2,267
	District		370	955	1,135	450	2	2,912
2	Fajardo		115	263	320	92	7	797
	Naguabo		11	66	76	22		175
	Rio Grande	4	69	173	155	61	3	465
	District	4	195	502	551	175	10	1,437
3	Humacao	15	124	241	196	37		613
	San Lorenzo	2	87	227	114	13		443
	Yabucoa	3	24	101	144	44	1	317
	District	20	235	569	454	94	1	1,373
4	Aguas Buenas	1	29	37	10			77
	Caguas		131	329	244	78		782
	Cayey		46	202	218	93	2	561
	District	1	206	568	472	171	2	1,420
5	Guayama		71	407	377	100		955
	Patillas		20	43	42	6		111
	District		91	450	419	106		1,066
6	Aibonito		34	145	79	16		274
	Barros	1	34	60	48	26		169
	Comerio		21	69	54	22		166
	District	1	89	274	181	64		609
7	Coamo		52	228	152	54		486
	Juan Diaz		29	129	123	44		325
	Santa Isabel		32	94	120	23		269
	District		113	451	395	121		1,080
8	Ponce		128	608	673	221	2	1,632
9	Lajas		6	37	34	12		89
	Sabana Grande		39	121	123	58		341
	Yauco		73	185	227	114	15	614
	District		118	343	384	184	15	1,044
10	Cabo Rojo		49	119	120	39	1	328
	Maricao	1	40	59	45	15	1	161
	San Germán		43	170	204	110		527
	District	1	132	348	369	164	2	1,016
11	Añasco	1	67	164	166	41		439
	Las Marias		23	43	37	8		111
	Mayaguez		152	390	423	136	1	1,102
	District	1	242	597	626	185	1	1,652
12	Aguada		42	72	60	18	1	193
	Agüadilla		79	296	279	76		730
	San Sebastián		98	135	83	14		330
	District		219	503	422	108	1	1,253
13	Camuy	1	156	213	182	75		627
	Isabela		21	63	104	34		222
	District	1	177	276	286	109		849
14	Arecibo	7	110	338	294	101	3	853
	Lares		31	74	81	65	4	255
	District	7	141	412	375	166	7	1,108

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*
GRADED SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
15	Adjuntas		62	119	87	57		325
	Utuaado		79	180	165	37		461
	District		141	299	252	94		786
16	Ciales		79	85	73	21		258
	Manatí		84	249	244	46		623
	Morovis		12	49	41	10		112
	District		175	383	358	77		993
17	Toa Alta	7	140	173	131	21		472
	Vega Baja		160	164	139	46		509
	District	7	300	337	270	67		981
18	Bayamón	1	192	352	268	69		882
	Vieques		35	110	86	24		255
	Total	44	3,299	8,337	7,976	2,649	43	22,348

RURAL SCHOOLS.

1	Carolina	1	180	343	244	63		831
	Rio Piedras		84	178	102	32		396
	San Juan		44	67	41	18	115	285
	District	1	308	588	387	113	115	1,512
2	Fajardo		92	190	122	35		439
	Naguabo		45	149	100	41		335
	Rio Grande	1	169	394	342	94		1,000
	District	1	306	733	564	170		1,774
3	Humacao		55	172	129	28		384
	San Lorenzo	6	142	219	113	18		498
	Yabucoa		92	163	98	12		365
	District	6	289	554	340	58		1,247
4	Aguas Buenas	1	72	119	58	1		251
	Caguas	6	129	326	199	14		674
	Cayey		84	274	219	49	2	628
	District	7	285	719	476	64	2	1,553
5	Guayama	3	128	283	184	27		625
	Patillas		96	119	69	11		295
	District	3	224	402	253	38		920
6	Aibonito		60	154	99	24		337
	Barros		150	336	220	63		769
	Comerio	14	94	159	99	5		371
	District	14	304	649	418	92		1,477
7	Coamo	11	123	345	298	45		822
	Juana Diaz		113	298	227	50		688
	Santa Isabel		24	53	44	8		129
	District	11	260	696	569	103		1,639
8	Ponce		315	851	684	127	1	1,978
9	Lajas	2	70	161	130	56		419
	Sabana Grande		49	187	125	19		380
	Yauco	8	140	303	232	69		752
	District	10	259	651	487	144		1,551
10	Cabo Rojo		139	237	196	39		611
	Maricao	1	55	74	67	14		211
	San German	9	141	256	242	81	1	730
	District	10	335	567	505	134	1	1,552

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

RURAL SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
11	Añasco.....	1	114	199	146	41	2	503
	Las Marias.....		98	153	146	42		439
	Mayaguez.....		171	401	339	95		1,006
	District.....	1	383	753	631	178	2	1,948
12	Aguada.....		53	126	75	29		283
	Aguadilla.....	15	169	437	311	107	1	1,040
	San Sebastian.....	1	147	288	212	42		690
	District.....	16	369	851	598	178	1	2,013
13	Camuy.....		112	237	225	56		630
	Isabela.....		94	205	181	64		544
	District.....		206	442	406	120		1,174
14	Arecibo.....	9	209	516	398	107	2	1,241
	Lares.....	2	103	242	183	59		589
	District.....	11	312	758	581	166	2	1,830
15	Adjuntas.....		76	169	149	37	2	433
	Utua.....		201	381	303	111	1	997
	District.....		277	550	452	148	3	1,430
16	Ciales.....	3	113	264	195	61	2	638
	Manatí.....	1	136	306	209	59	1	712
	Morovis.....		53	159	129	48	1	390
	District.....	4	302	729	533	168	4	1,740
17	Toa Alta.....		94	244	181	40		559
	Vega Baja.....		139	232	150	31		552
	District.....		233	476	331	71		1,111
18	Bayamón.....	8	368	648	486	133		1,643
	Vieques.....		40	126	45	6		217
	Total.....	103	5,375	11,743	8,746	2,211	131	28,309

COMMON SCHOOLS.

1	Carolina.....	1	234	480	344	121	2	1,182
	Rio Piedras.....		101	231	266	92		690
	San Juan.....		343	832	912	350	115	2,552
	District.....	1	678	1,543	1,522	563	117	4,424
2	Fajardo.....		207	453	442	127	7	1,236
	Naguabo.....		56	215	176	63		510
	Rio Grande.....	5	238	567	497	155	3	1,465
	District.....	5	501	1,235	1,115	345	10	3,211
3	Humacao.....	15	179	413	325	65		997
	San Lorenzo.....	8	229	446	227	31		941
	Yabucoa.....	3	116	264	242	56	1	682
	District.....	26	524	1,123	794	152	1	2,620
4	Agua Buenas.....	2	101	156	68	1		328
	Caguas.....	6	260	655	443	92		1,456
	Cayey.....		130	476	437	142	4	1,189
	District.....	8	491	1,287	948	235	4	2,973
5	Guayama.....	3	199	690	561	127		1,580
	Patillas.....		116	162	111	17		406
	District.....	3	315	852	672	144		1,986

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

COMMON SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
6	Aibonito		94	299	178	40		611
	Barros	1	184	396	268	89		938
	Comerio	14	115	228	153	27		537
	District	15	393	923	599	156		2,086
7	Coamo	11	175	573	450	99		1,308
	Juana Diaz		142	427	350	94		1,013
	Santa Isabel		56	147	164	31		398
	District	11	373	1,147	964	224		2,719
8	Ponce		443	1,459	1,357	348	3	3,610
9	Lajas	2	76	198	164	68		508
	Sabana Grande		88	308	248	77		721
	Yauco	8	213	488	459	183	15	1,366
	District	10	377	994	871	328	15	2,595
10	Cabo Rojo		188	356	316	78	1	939
	Maricao	2	95	133	112	29	1	372
	San German	9	184	426	446	191	1	1,257
	District	11	467	915	874	298	3	2,568
11	Añasco	2	181	363	312	82	2	942
	Las Marias		121	196	183	50		550
	Mayaguez		323	791	762	231	1	2,108
	District	2	625	1,350	1,257	363	3	3,600
12	Aguada		95	198	135	47	1	476
	Aguadilla	15	248	733	590	183	1	1,770
	San Sebastian	1	245	423	295	56		1,020
	District	16	588	1,354	1,020	286	2	3,266
13	Camuy	1	268	450	407	131		1,257
	Isabela		115	268	285	98		766
	District	1	383	718	692	229		2,023
14	Arecibo	16	319	854	692	208	5	2,094
	Lares	2	134	316	264	124	4	844
	District	18	453	1,170	956	332	9	2,938
15	Adjuntas		138	288	236	94	2	758
	Utua		280	561	468	148	1	1,458
	District		418	849	704	242	3	2,216
16	Ciales	3	192	349	268	82	2	896
	Manati	1	220	555	453	105	1	1,335
	Morovis		65	208	170	58	1	502
	District	4	477	1,112	891	245	4	2,733
17	Toa Alta	7	234	417	312	61		1,031
	Vega Baja		299	396	289	77		1,061
	District	7	533	813	601	138		2,092
18	Bayamón	9	560	1,000	754	202		2,525
	Vieques		75	236	131	30		472
	Total	147	8,674	20,080	16,722	4,860	174	50,657

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

SPECIAL SCHOOLS.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
1	Carolina		5	10	12		1	40
	San Juan	34	102	5	30	196	88	455
	District	34	107	15	42	208	89	495
2	Fajardo			2	19	27	8	56
	Rio Grande					19	38	57
	District			2	19	46	46	113
3	Humacao		16	16	16	32	7	87
	San Lorenzo		9	23	23	23	18	96
	District		25	39	39	55	25	183
4	Cayey			8	19	29	1	57
5	Guayama	2	13	18	28	47	23	131
6	Barros		7	14	40	17		78
7	Coamo				14	25	6	45
	Juana Diaz			7	16	20	6	49
	District			7	30	45	12	94
8	Ponce	3	57	1	80	259	29	429
9	Lajas		7	25	21	1		54
	Sabana Grande		3	25	18	5		51
	District		10	50	39	6		105
10	Cabo Rojo		16	25	19	2		62
	San German				7	32	14	53
	District		16	25	26	34	14	115
11	Añasco					48	13	61
	Mayaguez			1	30	185	22	238
	District			1	30	233	35	299
12	Aguadilla				12	36	20	68
	San Sebastian				8	26	13	47
	District				20	62	33	115
13	Camuy		8	8	19	8	1	44
14	Arecibo				15	102	18	135
	Lares				3	26	22	51
	District				18	128	40	186
15	Utuaado	1	3	21	27	40	25	117
16	Manatí				1	35	13	49
17	Toa Alta		2	25	30	6	2	65
18	Bayamón		12	20	19	4		55
	Total	40	260	254	526	1,262	388	2,730

COMMON SCHOOLS AND SPECIAL SCHOOLS.

1	Carolina	1	239	490	356	133	3	1,222
	Rio Piedras		101	231	266	92		690
	San Juan	34	445	837	942	546	203	3,007
	District	35	785	1,558	1,564	771	206	4,919
2	Fajardo		207	455	461	154	15	1,292
	Naguabo		56	215	176	63		510
	Rio Grande	5	238	567	497	174	41	1,522
	District	5	501	1,237	1,134	391	56	3,324

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

COMMON SCHOOLS AND SPECIAL SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
3	Humacao	15	195	429	341	97	7	1,084
	San Lorenzo	8	238	469	250	54	18	1,037
	Yabucoa	3	116	264	242	56	1	682
	District	26	549	1,162	833	207	26	2,803
4	Aguas Buenas	2	101	156	68	1	.....	328
	Caguas	6	260	655	443	92	.....	1,456
	Cayey .....	.....	130	484	456	171	5	1,246
	District	8	491	1,295	967	264	5	3,030
5	Guayama	5	212	708	589	174	23	1,711
	Patillas .....	.....	116	162	111	17	.....	406
	District	5	328	870	700	191	23	2,117
6	Aibonito .....	.....	94	299	178	40	.....	611
	Barros	1	191	410	308	106	.....	1,016
	Comerio	14	115	228	153	27	.....	537
	District	15	400	937	639	173	.....	2,164
7	Coamo	11	175	573	464	124	6	1,353
	Juana Diaz .....	.....	142	434	366	114	6	1,062
	Santa Isabel .....	.....	56	147	164	31	.....	398
	District	11	373	1,154	994	269	12	2,813
8	Ponce	3	500	1,460	1,437	607	32	4,039
9	Lajas	2	83	223	185	69	.....	562
	Sabana Grande .....	.....	91	333	266	82	.....	772
	Yauco	8	213	488	459	183	15	1,366
	District	10	387	1,044	910	334	15	2,700
10	Cabo Rojo .....	.....	204	381	335	80	1	1,001
	Maricao	2	95	133	112	29	1	372
	San Germán	9	184	426	453	223	15	1,310
	District	11	483	940	900	332	17	2,683
11	Añasco	2	181	363	312	130	15	1,003
	Las Marias .....	.....	121	196	183	50	.....	550
	Mayaguez .....	.....	323	792	792	416	23	2,346
	District	2	625	1,351	1,287	596	38	3,899
12	Aguada .....	.....	95	198	135	47	1	476
	Aguadilla	15	248	733	602	219	21	1,838
	San Sebastian	1	245	423	303	82	13	1,067
	District	16	588	1,354	1,040	348	35	3,381
13	Camuy	1	276	458	426	139	1	1,301
	Isabela .....	.....	115	268	285	98	.....	766
	District	1	391	726	711	237	1	2,067
14	Arecibo	16	319	854	707	310	23	2,229
	Lares	2	134	316	267	150	26	895
	District	18	453	1,170	974	460	49	3,124
15	Adjuntas .....	.....	138	288	236	94	2	758
	Utua	1	283	582	495	188	26	1,575
	District	1	421	870	731	282	28	2,333
16	Ciales	3	192	349	268	82	2	896
	Manati	1	220	555	454	140	14	1,384
	Morovis .....	.....	65	208	170	58	1	502
	District	4	477	1,112	892	280	17	2,782

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

COMMON SCHOOLS AND SPECIAL SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
17	Toa Alta	7	236	442	342	67	2	1,096
	Vega Baja		299	396	289	77		1,061
	District	7	535	838	631	144	2	2,157
18	Bayamón	9	572	1,020	773	206		2,580
	Vieques		75	236	131	30		472
	Totals	187	8,934	20,334	17,248	6,122	562	53,387

(Third term, 1903-4.)

GRADED SCHOOLS.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
1	Carolina		54	133	90	50	1	328
	Río Piedras		21	70	117	48		256
	San Juan		310	753	762	285		2,110
	District		385	956	969	383	1	2,694
2	Fajardo		116	245	300	78	8	747
	Naguabo		13	75	82	19		189
	Río Grande	4	70	164	148	54	3	443
	District	4	199	484	530	151	11	1,379
3	Humacao	14	109	198	179	29		529
	San Lorenzo	3	85	216	98	5		407
	Yabucoa	3	36	106	110	33	1	289
	District	20	230	520	387	67	1	1,225
4	Aguas Buenas		2	30	32	13		77
	Caguas		116	321	233	72		742
	Cayey		44	200	220	66		530
	District		162	551	485	151		1,349
5	Guayama		68	404	347	89	2	910
	Patillas		20	43	37	5		105
	District		88	447	384	94	2	1,015
6	Aibonito		34	139	78	15		266
	Barros	1	38	60	49	25		173
	Comerio		20	69	56	19		164
	District	1	92	268	183	59		603
7	Coamo		50	182	139	43		414
	Juana Díaz		30	126	122	41		319
	Santa Isabel		29	89	77	20		215
	District		109	397	338	104		948
8	Ponce		146	650	663	205	3	1,667
	Lajas		5	36	32	10		83
	Sabana Grande		39	119	118	50		326
	Yauco		77	219	261	91	2	650
9	District		121	374	411	151	2	1,059
10	Cabo Rojo		52	114	91	25		282
	Maricao	1	34	51	36	15	1	138
	San Germán		47	166	179	91	14	497
	District	1	133	331	306	131	15	917

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

GRADED SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
11	Añasco.....	1	65	149	153	37	.....	405
	Las Marias.....	.....	25	36	31	6	.....	98
	Mayaguez.....	.....	149	380	338	110	2	979
	District.....	1	239	565	522	153	2	1,482
12	Aguada.....	.....	54	86	44	14	1	199
	Aguadilla.....	1	120	296	270	80	.....	767
	San Sebastian.....	.....	98	141	86	18	.....	343
	District.....	1	272	523	400	112	1	1,309
13	Camuy.....	.....	147	199	153	56	.....	555
	Isabela.....	.....	33	58	71	37	.....	199
	District.....	.....	180	257	224	93	.....	754
14	Arecibo.....	4	101	328	271	85	40	829
	Lares.....	.....	24	73	81	64	4	246
	District.....	4	125	401	352	149	44	1,075
15	Adjuntas.....	.....	60	113	84	53	.....	310
	Utado.....	.....	77	205	217	39	.....	538
	District.....	.....	137	318	301	92	.....	848
16	Ciales.....	.....	80	83	64	15	.....	242
	Manati.....	.....	79	221	210	42	.....	552
	Morovis.....	.....	11	48	42	10	.....	111
	District.....	.....	170	352	316	67	.....	905
17	Toa Alta.....	8	134	170	124	19	.....	455
	Vega Baja.....	.....	139	159	127	36	.....	461
	District.....	8	273	329	251	55	.....	916
18	Bayamón.....	4	187	319	262	61	.....	833
	Vieques.....	.....	32	98	74	18	.....	222
	Total.....	44	3,280	8,140	7,358	2,196	82	21,200

RURAL SCHOOLS.

1	Carolina.....	.....	176	323	221	49	.....	769
	Rio Piedras.....	.....	72	167	96	34	.....	369
	San Juan.....	.....	32	69	33	16	118	268
	District.....	.....	280	559	350	99	118	1,406
2	Fajardo.....	.....	103	184	113	31	.....	431
	Naguabo.....	.....	45	139	98	37	.....	319
	Rio Grande.....	1	177	382	311	98	.....	969
	District.....	1	325	705	522	166	.....	1,719
3	Humacao.....	6	75	181	92	12	.....	366
	San Lorenzo.....	8	126	196	114	13	.....	457
	Yabucoa.....	.....	98	174	94	11	.....	377
	District.....	14	299	551	300	36	.....	1,200
4	Agua Buenas.....	1	75	116	62	3	.....	257
	Caguas.....	6	141	345	219	14	.....	725
	Cayey.....	1	113	278	189	29	.....	610
	District.....	8	329	739	470	46	.....	1,592
5	Guayama.....	21	141	272	166	18	.....	618
	Patillas.....	.....	98	119	64	10	.....	291
	District.....	21	239	391	230	28	.....	909

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

RURAL SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
6	Aibonito		80	167	84	38		369
	Barros	1	158	335	216	57		767
	Comerio	3	93	159	103	8		366
	District	4	331	661	403	103		1,502
7	Coamo	4	118	353	292	51		818
	Juana Diaz		119	290	215	43		667
	Santa Isabel		24	67	46	8		145
	District	4	261	710	553	102		1,630
8	Ponce	1	354	867	636	120	47	2,025
9	Lajas	7	68	165	146	45		431
	Sabana Grande		43	161	109	14		327
	Yauco	8	127	266	204	55		660
	District	15	238	592	459	114		1,418
10	Cabo Rojo		134	236	192	36		598
	Maricao	1	54	66	57	11		189
	San Germán	19	143	289	224	73		698
	District	20	331	541	473	120		1,485
11	Añasco	1	114	172	140	30	2	459
	Las Marias		77	123	120	31	4	355
	Mayaguez		150	376	321	79	1	927
	District	1	341	671	581	140	7	1,741
12	Aguada		58	132	79	31		300
	Aguadilla	2	175	453	345	106	1	1,082
	San Sebastian	1	158	300	220	45		724
	District	3	391	885	644	182	1	2,106
13	Camuy		122	239	225	45	4	635
	Isabela	6	107	196	166	58		533
	District	6	229	435	391	103	4	1,168
14	Arecibo	1	203	501	368	67	3	1,143
	Lares	2	85	225	156	52		520
	District	3	288	726	524	119	3	1,663
15	Adjuntas		76	153	151	36	2	418
	Utuado		195	374	274	107		950
	District		271	527	425	143	2	1,368
16	Ciales	3	112	252	191	55		613
	Manati		135	288	210	50		683
	Morovis		57	164	125	44		390
	District	3	304	704	526	149		1,686
17	Toa Alta		87	221	172	34		514
	Vega Baja		133	229	143	26		531
	District		220	450	315	60		1,045
18	Bayamón	8	400	690	491	120		1,709
	Vieques		54	123	34	5		216
	Total	112	5,485	11,527	8,327	1,955	182	27,588

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

COMMON SCHOOLS.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
1	Carolina		230	456	311	99	1	1,097
	Rio Piedras		93	237	213	82		625
	San Juan		342	822	795	301	118	2,378
	District		665	1,515	1,319	482	119	4,100
2	Fajardo		219	429	413	109	8	1,178
	Naguabo		58	214	180	56		508
	Rio Grande	5	247	546	459	152	3	1,412
	District	5	524	1,189	1,052	317	11	3,098
3	Humacao	20	184	379	271	41		895
	San Lorenzo	11	211	412	212	18		864
	Yabucoa	3	134	280	204	44	1	666
	District	34	529	1,071	687	103	1	2,425
4	Agua8 Buenas	1	77	146	94	16		334
	Caguas	6	257	666	452	86		1,467
	Cayey	1	157	478	409	95		1,140
	District	8	491	1,290	955	197		2,941
5	Guayama	21	209	676	513	107	2	1,528
	Patillas		118	162	101	15		396
	District	21	327	838	614	122	2	1,924
6	Aibonito		114	306	162	53		635
	Barros	2	196	395	265	82		940
	Comerio	3	113	228	159	27		530
	District	5	423	929	586	162		2,105
7	Coamo	4	168	535	431	94		1,232
	Juana Diaz		149	416	337	84		986
	Santa Isabel		53	156	123	28		360
	District	4	370	1,107	891	206		2,578
8	Ponce	1	500	1,517	1,299	325	50	3,692
9	Lajas	7	73	201	178	55		514
	Sabana Grande		82	280	227	64		653
	Yauco	8	204	485	465	146	2	1,310
	District	15	359	966	870	265	2	2,477
10	Cabo Rojo		186	350	283	61		880
	Maricao	2	88	117	93	26	1	327
	San Germán	19	190	405	403	164	14	1,195
	District	21	464	872	779	251	15	2,402
11	Añasco	2	179	321	293	67	2	864
	Las Marias		102	159	151	37	4	453
	Mayaguez		299	756	659	189	3	1,906
	District	2	580	1,236	1,103	293	9	3,223
12	Aguada		112	218	123	45	1	499
	Aguadilla	3	295	749	615	186	1	1,849
	San Sebastian	1	256	441	306	63		1,067
	District	4	663	1,408	1,044	294	2	3,415
13	Camuy		269	438	378	101	4	1,190
	Isabela	6	140	254	237	95		732
	District	6	409	692	615	196	4	1,922
14	Arecibo	5	304	829	639	152	43	1,972
	Lares	2	109	298	237	116	4	766
	District	7	413	1,127	876	268	47	2,738

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

COMMON SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
15	Adjuntas .....	.....	136	266	235	89	2	728
	Utua .....	.....	272	579	491	146	.....	1,488
	District .....	.....	408	845	726	235	2	2,216
16	Ciales	3	192	335	255	70	.....	855
	Manati .....	.....	214	509	420	92	.....	1,235
	Morovis .....	.....	68	212	167	54	.....	501
	District	3	474	1,056	842	216	.....	2,591
17	Toa Alta	8	221	391	296	53	.....	969
	Vega Baja .....	.....	272	388	270	62	.....	992
	District	8	493	779	566	115	.....	1,961
18	Bayamón	12	587	1,009	753	181	.....	2,542
	Vieques .....	.....	86	221	108	23	.....	438
	Total	156	8,765	19,667	15,685	4,251	264	48,788

(Third term, 1903-4.)

SPECIAL SCHOOLS.

1	Carolina .....	.....	7	14	14	12	.....	47
	San Juan	52	82	13	30	150	113	440
	District	52	89	27	44	162	113	487
2	Fajardo .....	.....	.....	6	22	27	6	61
	Rio Grande .....	.....	.....	.....	.....	20	30	50
	District .....	.....	.....	6	22	47	36	111
3	Humacao .....	.....	17	16	21	7	21	82
	San Lorenzo .....	.....	9	23	22	23	26	103
	District .....	.....	26	39	43	30	47	185
4	Cayey .....	.....	.....	6	14	25	2	47
5	Guayama	3	13	38	47	21	.....	122
6	Barros .....	.....	6	13	39	16	.....	74
7	Coamo .....	.....	.....	.....	11	19	4	34
	Juana Diaz .....	.....	.....	9	19	18	7	53
	District .....	.....	.....	9	30	37	11	87
8	Ponce	5	55	2	93	222	21	398
9	Lajas .....	.....	6	21	15	5	.....	47
	Sabana Grande .....	.....	3	25	16	4	.....	48
	District .....	.....	9	46	31	9	.....	95
10	Cabo Rojo .....	.....	15	20	17	2	.....	54
	San Germán .....	.....	.....	.....	6	24	15	45
	District .....	.....	15	20	23	26	15	99
11	Añasco .....	.....	.....	.....	.....	52	14	66
	Mayaguez .....	.....	.....	1	34	160	21	216
	District .....	.....	.....	1	34	212	35	282
12	Aguadilla .....	.....	.....	.....	13	44	23	80
	San Sebastian .....	.....	.....	.....	11	29	14	54
	District .....	.....	.....	.....	24	73	37	134
13	Camuy .....	.....	8	8	17	5	1	39
14	Arecibo .....	.....	.....	.....	16	84	16	116
	Lares .....	.....	.....	.....	3	32	25	60
	District .....	.....	.....	.....	19	116	41	176

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

SPECIAL SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
15	Utuaado		7	23	24	26	22	102
16	Manatí				1	24	10	35
17	Toa Alta	3	25	26	5	2		61
18	Bayamón		10	21	16	4		51
	Total	63	263	285	526	1,057	391	2,585

COMMON SCHOOLS AND SPECIAL SCHOOLS.

1	Carolina		237	470	325	111	1	1,144
	Rio Piedras		93	237	213	82		625
	San Juan	52	424	835	825	451	231	2,818
	District	52	754	1,542	1,363	644	232	4,587
2	Fajardo		219	435	435	136	14	1,239
	Naguabo		58	214	180	56		508
	Rio Grande	5	247	546	459	172	33	1,462
	District	5	524	1,195	1,074	364	47	3,209
3	Humacao	20	201	395	292	48	21	977
	San Lorenzo	11	220	435	234	41	26	967
	Yabucoa	3	134	280	204	44	1	666
	District	34	555	1,110	730	133	48	2,610
4	Aguas Buenas	1	77	146	94	16		334
	Caguas	6	257	666	452	86		1,467
	Cayey	1	157	484	423	120	2	1,187
	District	8	491	1,296	969	222	2	2,988
5	Guayama	24	222	714	560	128	2	1,650
	Patillas		118	162	101	15		396
	District	24	340	876	661	143	2	2,046
6	Aibonito		114	306	162	53		635
	Barros	2	202	408	304	98		1,014
	Comerio	3	113	228	159	27		530
	District	5	429	942	625	178		2,179
7	Coamo	4	168	535	442	113	4	1,266
	Juana Díaz		149	425	356	102	7	1,039
	Santa Isabel		53	156	123	28		360
	District	4	370	1,116	921	243	11	2,665
8	Ponce	6	555	1,519	1,392	547	71	4,090
9	Lajas	7	79	222	193	60		561
	Sabana Grande		85	305	243	68		701
	Yauco	8	204	485	465	146	2	1,310
	District	15	368	1,012	901	274	2	2,572
10	Cabo Rojo		201	370	300	63		934
	Maricao	2	88	117	93	26	1	327
	San German	19	190	405	409	188	29	1,240
	District	21	479	892	802	277	30	2,501
11	Añasco	2	179	321	293	119	16	930
	Las Marias		102	159	151	37	4	453
	Mayaguez		299	757	693	349	24	2,122
	District	2	580	1,237	1,137	505	44	3,505
12	Aguada		112	218	123	45	1	499
	Aguadilla	3	295	749	628	230	24	1,929
	San Sebastian	1	256	441	317	92	14	1,121
	District	4	663	1,408	1,068	367	39	3,549

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

COMMON SCHOOLS AND SPECIAL SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
13	Camuy		277	446	395	106	5	1,229
	Isabela	6	140	254	237	95		732
	District	6	417	700	632	201	5	1,961
14	Arecibo	5	304	829	655	236	59	2,088
	Lares	2	109	298	240	148	29	826
	District	7	413	1,127	895	384	88	2,914
15	Adjuntas		136	266	235	89	2	728
	Utuado		279	602	515	172	22	1,590
	District		415	868	750	261	24	2,318
16	Ciales	3	192	335	255	70		855
	Manati		214	509	421	116	10	1,270
	Morovis		68	212	167	54		501
	District	3	474	1,056	843	240	10	2,626
17	Toa Alta	11	246	417	301	55		1,030
	Vega Baja		272	388	270	62		992
	District	11	518	805	571	117		2,022
18	Bayamón	12	597	1,030	769	185		2,593
	Vieques		86	221	108	23		438
	Total	219	9,028	19,952	16,211	5,308	655	51,373

(School year 1903-4.)

GRADED SCHOOLS.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
1	Carolina		70	166	112	80	2	430
	Rio Piedras		44	102	176	62		384
	San Juan	1	406	1,008	1,007	420	1	2,843
	District	1	520	1,276	1,295	562	3	3,657
2	Fajardo		133	312	361	115	9	930
	Naguabo		13	93	102	24		232
	Rio Grande	4	81	222	200	71	4	582
	District	4	227	627	663	210	13	1,744
3	Humacao	19	174	272	226	39		730
	San Lorenzo	3	115	312	162	17		609
	Yabucoa	3	49	135	126	43	1	357
	District	25	338	719	514	99	1	1,696
4	Aguas Buenas		2	37	46	16		101
	Caguas		189	401	248	87		925
	Cayey		68	266	272	123	2	731
	District		259	704	566	226	2	1,757
5	Guayama		86	443	455	100	2	1,086
	Patillas		21	53	51	8		133
	District		107	496	506	108	2	1,219
	Aibonito		47	199	135	22		403
	Barros	1	50	87	69	32		239
	Comerio		22	85	68	30		205
	District	1	119	371	272	84		847

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

GRADED SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
7	Coamo		56	237	174	61		528
	Juana Díaz		36	144	140	47		367
	Santa Isabel		32	102	123	30		237
	District		124	483	437	138		1,182
8	Ponce		160	723	750	270	7	1,910
9	Lajas		13	47	38	15		113
	Sabana Grande		43	131	127	68		369
	Yauco		94	258	309	119	2	782
	District		150	436	474	202	2	1,264
10	Cabo Rojo		81	181	152	44	1	459
	Maricao	1	48	83	76	20	1	229
	San Germán		55	189	226	131	1	602
	District	1	184	453	454	195	3	1,290
11	Añasco	1	70	179	171	47		468
	Las Marias		27	55	41	10		133
	Mayaguez		171	564	712	198	2	1,647
	District	1	268	798	924	255	2	2,248
12	Aguada		54	86	44	14	1	199
	Aguadilla		88	324	288	67		767
	San Sebastian		98	141	86	18		343
	District		240	551	418	99	1	1,309
13	Camuy	1	180	271	237	103		792
	Isabela		53	95	114	40		302
	District	1	233	366	351	143		1,094
14	Arecibo	7	123	368	370	136	4	1,008
	Lares		43	109	113	76	4	345
	District	7	166	477	483	212	8	1,353
15	Adjuntas	2	83	147	117	75		424
	Utado		96	248	248	45		637
	District	2	179	395	365	120		1,061
16	Ciales		96	127	98	14	11	346
	Manatí		92	269	260	65		686
	Morovis		12	62	49	19		142
	District		200	458	407	98	11	1,174
17	Toa Alta	9	155	257	200	35		656
	Vega Baja	1	196	200	159	58		614
	District	10	351	457	359	93		1,270
18	Bayamón	5	245	444	344	84		1,122
	Vieques		50	161	136	36		383
	District							
	Total	58	4,120	10,395	9,718	3,234	55	27,580

RURAL SCHOOLS.

1	Carolina	1	207	368	279	81		936
	Rio Piedras		108	190	125	51		474
	San Juan		53	114	67	23	156	413
	District	1	368	672	471	155	156	1,823
2	Fajardo		122	194	136	36	1	489
	Naguabo		46	154	102	42		344
	Rio Grande	2	183	440	371	106		1,102
	District	2	351	788	609	184	1	1,935

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

RURAL SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
3	Humacao	5	78	168	126	34	.....	411
	San Lorenzo	7	178	262	141	25	1	614
	Yabucoa	1	98	179	106	11	.....	395
	District	13	354	609	373	70	1	1,420
4	Aguas Buenas	1	84	135	68	7	.....	295
	Caguas	6	163	416	258	23	.....	866
	Cayey	1	126	340	256	51	2	776
	District	8	373	891	582	81	2	1,937
5	Guayama	4	158	320	215	30	.....	727
	Patillas .....	.....	103	126	74	14	.....	317
	District	4	261	446	289	44	.....	1,044
6	Aibonito .....	.....	82	180	99	33	.....	394
	Barros	1	193	358	224	74	.....	850
	Comerio	4	97	171	83	21	.....	376
	District	5	372	709	406	128	.....	1,620
7	Coamo	10	108	406	347	86	.....	957
	Juana Diaz .....	.....	131	330	256	59	.....	776
	Santa Isabel	3	48	96	71	22	.....	240
	District	13	287	832	674	167	.....	1,973
8	Ponce	8	388	955	784	187	47	2,369
	Lajas	7	75	179	164	52	.....	477
	Sabana Grande	16	71	180	123	25	.....	415
	Yauco	12	199	303	237	65	.....	816
9	District	35	345	662	524	142	.....	1,708
	Cabo Rojo .....	.....	149	259	218	47	.....	673
	Maricao	1	62	77	70	14	.....	224
	San German	19	155	258	243	81	.....	756
10	District	20	366	594	531	142	.....	1,653
	Añasco	1	123	211	172	43	.....	550
	Las Marias .....	.....	124	176	146	43	.....	489
	Mayaguez .....	.....	227	540	430	136	1	1,334
11	District	1	474	927	748	222	1	2,373
	Aguada .....	.....	58	132	79	31	.....	300
	Aguadilla	4	203	456	357	94	1	1,115
	San Sebastian	14	168	300	201	41	.....	724
12	District	18	429	888	637	166	1	2,139
	Camuy .....	.....	118	240	232	46	6	642
	Isabela	14	175	221	160	104	.....	674
	District	14	293	461	392	150	6	1,316
13	Arecibo	1	233	614	460	118	3	1,429
	Lares	2	119	269	192	68	.....	650
	District	3	352	883	652	186	3	2,079
	Adjuntas .....	.....	84	181	163	46	2	476
14	Utuado .....	.....	248	495	323	128	1	1,135
	District .....	.....	332	616	486	174	3	1,611
	Ciales	3	148	312	237	65	1	766
	Manati	7	192	322	249	57	1	828
15	Morovis .....	.....	64	189	143	50	1	447
	District	10	404	823	629	172	3	2,041

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

RURAL SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
17	Toa Alta .....	.....	97	258	198	43	.....	596
	Vega Baja .....	.....	144	253	161	30	.....	588
	District .....	.....	241	511	359	73	.....	1,184
18	Bayamón	4	463	780	562	143	8	1,960
	Vieques .....	.....	65	145	61	10	.....	281
	Total	159	6,518	13,192	9,769	2,596	232	32,466

COMMON SCHOOLS.

1	Carolina	1	277	534	391	161	2	1,366
	Rio Piedras .....	.....	152	292	301	113	.....	858
	San Juan	1	459	1,122	1,074	443	157	3,256
	District	2	888	1,948	1,766	717	159	5,480
2	Fajardo .....	.....	255	506	497	151	10	1,419
	Naguabo .....	.....	59	247	204	66	.....	576
	Rio Grande	6	264	662	571	177	4	1,684
	District	6	578	1,415	1,272	394	14	3,679
3	Humacao	24	252	440	352	73	.....	1,141
	San Lorenzo	10	293	574	303	42	1	1,223
	Yabucoa	4	147	314	232	54	1	752
	District	38	692	1,328	887	169	2	3,116
4	Aguas Buenas	1	86	172	114	23	.....	396
	Caguas	6	352	817	506	110	.....	1,791
	Cayey	1	194	606	528	174	4	1,507
	District	8	632	1,595	1,148	307	4	3,694
5	Guayama	4	244	763	670	130	2	1,813
	Patillas .....	.....	124	179	125	22	.....	450
	District	4	368	942	795	152	2	2,263
6	Aibonito .....	.....	129	379	234	55	.....	797
	Barros	2	243	445	293	106	.....	1,089
	Comerio	4	119	256	151	51	.....	581
	District	6	491	1,080	678	212	.....	2,467
7	Coamo	10	164	643	521	147	.....	1,485
	Juana Díaz .....	.....	167	474	396	106	.....	1,143
	Santa Isabel	3	80	198	194	52	.....	527
	District	13	411	1,315	1,111	305	.....	3,155
8	Ponce	8	548	1,678	1,534	457	54	4,279
9	Lajas	7	88	226	202	67	.....	590
	Sabana Grande	16	114	311	250	93	.....	784
	Yauco	12	293	561	546	184	2	1,598
	District	35	495	1,098	998	344	2	2,972
10	Cabo Rojo .....	.....	230	440	370	91	1	1,132
	Maricao	2	110	160	146	34	1	453
	San Germán	19	210	447	469	212	1	1,358
	District	21	550	1,047	985	337	3	2,943
11	Añasco	2	193	390	343	90	.....	1,018
	Las Marias .....	.....	151	231	187	53	.....	622
	Mayaguez .....	.....	398	1,104	1,142	334	3	2,981
	District	2	742	1,725	1,672	477	3	4,621

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

COMMON SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
12	Aguada		112	218	123	45	1	499
	Aguadilla	4	291	780	645	161	1	1,882
	San Sebastian	14	266	441	287	59		1,067
	District	18	669	1,439	1,055	265	2	3,448
13	Camuy	1	298	511	469	149	6	1,434
	Isabela	14	228	316	274	144		976
	District	15	526	827	743	293	6	2,410
14	Arecibo	8	356	982	830	254	7	2,437
	Lares	2	162	378	305	144	4	995
	District	10	518	1,360	1,135	398	11	3,432
15	Adjuntas	2	167	328	280	121	2	900
	Utuado		344	683	571	173	1	1,772
	District	2	511	1,011	851	294	3	2,672
16	Ciales	3	244	439	335	79	12	1,112
	Manati	7	284	591	509	122	1	1,514
	Morovis		76	251	192	69	1	589
	District	10	604	1,281	1,036	270	14	3,215
17	Toa Alta	9	252	515	398	78		1,252
	Vega Baja	1	340	453	320	88		1,202
	District	10	592	968	718	166		2,454
18	Bayamón	9	708	1,224	906	227	8	3,082
	Vieques		115	306	197	46		664
	Total	217	10,638	23,587	19,487	5,830	287	60,046

SPECIAL SCHOOLS.

1	Carolina		7	14	17	14	1	53
	San Juan	52	82	11	39	221	191	596
	District	52	89	25	56	235	192	649
2	Fajardo	1	7	26	34	8		76
	Río Grande				28	46		74
	District	1	7	26	62	54		150
3	Humacao		46	49	40	49	11	195
	San Lorenzo		8	21	20	45	24	118
	District		54	70	60	94	35	313
4	Cayey		13	30	42	3		88
5	Guayama	3	14	41	55	26		139
6	Barros	8	17	45	18			88
7	Coamo				14	30	6	50
	Juana Díaz			9	24	35	15	83
	District			9	38	65	21	133
8	Ponce	6	58	1	88	321	40	514
9	Lajas		7	23	18	11		59
	Sabana Grande		3	26	20	5		54
	District		10	49	38	16		113
10	Cabo Rojo		20	30	23	3		76
	San Germán				8	48	32	88
	District		20	30	31	51	32	164

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

SPECIAL SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
11	Añasco.....					52	14	66
	Mayaguez.....			1	38	254	24	317
	District			1	38	306	38	383
12	Aguadilla.....				13	44	23	80
	San Sebastian.....				11	29	14	54
	District				24	73	37	134
13	Camuy.....	8	8	19	8		1	44
14	Arecibo.....				16	105	21	142
	Lares.....				5	39	44	88
	District				21	144	65	230
15	Utua.....	7	25	31	44	40		147
16	Manatí.....				1	49	24	74
17	Toa Alta.....		3	27	34	9	3	76
18	Bayamón.....		13	27	23	8		71
	Total.....	85	331	431	681	1,494	488	3,510

COMMON SCHOOLS AND SPECIAL SCHOOLS.

1	Carolina.....	1	284	548	408	175	3	1,419
	Rio Piedras.....		152	292	301	113		858
	San Juan.....	53	541	1,133	1,113	664	348	3,852
	District	54	977	1,973	1,822	952	351	6,129
2	Fajardo.....	1	262	532	531	159	10	1,495
	Naguabo.....		59	247	204	66		576
	Rio Grande.....	6	264	662	599	223	4	1,758
	District	7	585	1,441	1,334	448	14	3,829
3	Humacao.....	24	298	489	392	122	11	1,336
	San Lorenzo.....	10	301	595	323	87	25	1,341
	Yabucoa.....	4	147	314	232	54	1	752
	District	38	746	1,398	947	263	37	3,429
4	Agua Buenas.....	1	86	172	114	23		396
	Caguas.....	6	352	817	506	110		1,791
	Cayey.....	1	207	636	570	177	4	1,595
	District	8	645	1,625	1,190	310	4	3,782
5	Guayama.....	7	258	804	725	156	2	1,952
	Patillas.....		124	179	125	22		450
	District	7	382	983	850	178	2	2,402
6	Aibonito.....		129	379	234	55		797
	Barros.....	10	260	490	311	106		1,177
	Comerio.....	4	119	256	151	51		581
	District	14	508	1,125	696	212		2,555
7	Coamo.....	10	164	643	535	177	6	1,535
	Juana Diaz.....		167	483	420	141	15	1,226
	Santa Isabel.....	3	80	198	194	52		527
	District	13	411	1,324	1,149	370	21	3,288
8	Ponce.....	14	606	1,679	1,622	778	94	4,793
9	Lajas.....	7	95	249	220	78		649
	Sabana Grande.....	16	117	337	270	98		838
	Yauco.....	12	293	561	546	184	2	1,598
	District	35	505	1,147	1,036	360	2	3,085

TABLE III.—*Distribution (pupils) by age, common schools, and special schools—Cont'd.*

COMMON SCHOOLS AND SPECIAL SCHOOLS—Continued.

School district.	Municipality.	Age (years).						Enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
10	Cabo Rojo.....	.....	250	470	393	94	1	1,208
	Maricao.....	2	110	160	146	34	1	453
	San Germán.....	19	210	447	477	260	33	1,446
	District.....	21	570	1,077	1,016	388	35	3,107
11	Añasco.....	2	193	390	343	142	14	1,084
	Las Marias.....	.....	151	231	187	53	.....	622
	Mayaguez.....	.....	398	1,105	1,180	588	27	3,298
	District.....	2	742	1,726	1,710	783	41	5,004
12	Aguada.....	.....	112	218	123	45	1	499
	Aguadilla.....	4	291	780	658	205	24	1,962
	San Sebastian.....	14	266	441	298	88	14	1,121
	District.....	18	669	1,439	1,079	338	39	3,582
13	Camuy.....	9	306	530	477	149	7	1,478
	Isabela.....	14	228	316	274	144	.....	976
	District.....	23	534	846	751	293	7	2,454
14	Arecibo.....	8	356	982	846	359	28	2,579
	Lares.....	2	162	378	310	183	48	1,083
	District.....	10	518	1,360	1,156	542	76	3,662
15	Adjuntas.....	2	167	328	280	121	2	900
	Utuado.....	7	369	714	615	213	1	1,919
	District.....	9	536	1,042	895	334	3	2,819
16	Ciales.....	3	244	439	335	79	12	1,112
	Manatí.....	7	284	591	510	171	25	1,588
	Morovis.....	.....	76	251	192	69	1	589
	District.....	10	604	1,281	1,037	319	38	3,289
17	Toa Alta.....	9	255	542	432	87	3	1,328
	Vega Baja.....	1	340	453	320	88	.....	1,202
	District.....	10	595	995	752	175	3	2,530
18	Bayamón.....	9	721	1,251	929	235	8	3,153
	Vieques.....	.....	115	306	197	46	.....	664
	District.....	.....	.....	.....	.....	.....	.....	.....
	Total.....	302	10,969	24,018	20,168	7,324	775	63,556

TABLE IV.—*Aggregate number of days attendance of all pupils, and aggregate number of days actual teaching, common schools and special schools.*

(First term, 1903-4.)

COMMON SCHOOLS.

School district.	Municipality.	Aggregate number days attendance.			Aggregate number days actual teaching.
		Graded.	Rural.	Total.	
1	Carolina.....	19,785.5	39,489.5	59,275.0	1,430.5
	Río Piedras.....	16,174.0	18,836.5	35,010.5	832.0
	San Juan.....	119,105.5	13,650.0	132,755.5	3,876.5
	District.....	155,065.0	71,976.0	227,041.0	6,139.0
2	Fajardo.....	43,296.5	22,094.0	65,390.5	1,486.0
	Naguabo.....	9,921.5	15,848.0	25,769.5	623.5
	Río Grande.....	26,710.5	45,589.0	72,299.5	1,613.5
	District.....	79,928.5	83,531.0	163,459.5	3,723.0

TABLE IV.—*Aggregate number of days attendance of all pupils, and aggregate number of days actual teaching, common schools and special schools—Continued.*

COMMON SCHOOLS—Continued.

School district.	Municipality.	Aggregate number days attendance.			Aggregate number days actual teaching.
		Graded.	Rural.	Total.	
3	Humacao.....	24,620.5	18,416.0	43,036.5	1,172.0
	San Lorenzo.....	21,458.5	10,955.0	32,413.5	978.0
	Yabucoa.....	15,063.0	38,366.0	53,429.0	928.0
	District.....	61,142.0	67,737.0	128,879.0	3,078.0
4	Aguas Buenas.....	6,954.5	9,083.0	16,037.5	506.5
	Caguas.....	38,328.5	27,965.0	66,293.5	1,826.0
	Cayey.....	28,809.0	25,073.0	53,882.0	1,426.0
	District.....	74,092.0	62,121.0	136,213.0	3,758.5
5	Guayama.....	46,414.0	27,119.0	73,533.0	1,827.0
	Patillas.....	5,175.5	10,203.0	15,378.5	503.0
	District.....	51,589.5	37,322.0	88,911.5	2,330.0
6	Aibonito.....	14,250.0	13,861.0	28,111.0	772.0
	Barros.....	9,027.5	27,773.0	36,800.5	1,068.0
	Comerio.....	9,211.0	16,976.0	26,187.0	701.0
	District.....	32,488.5	58,610.0	91,098.5	2,541.0
7	Coamo.....	22,552.0	41,770.0	64,322.0	1,547.0
	Juana Diaz.....	17,392.5	31,330.0	48,722.5	1,112.0
	Santa Isabel.....	6,800.0	9,233.5	16,033.5	402.0
	District.....	46,744.5	82,333.5	129,078.0	3,061.0
8	Ponce.....	94,200.0	88,936.0	183,136.0	5,103.0
9	Lajas.....	9,038.0	17,176.0	26,214.0	612.0
	Sabana Grande.....	17,321.5	20,329.0	37,650.5	856.5
	Yauco.....	35,322.0	29,441.0	64,763.0	1,716.5
	District.....	61,681.5	66,946.0	128,627.5	3,185.0
10	Cabo Rojo.....	15,216.5	26,574.0	41,790.5	1,093.0
	Maricao.....	5,171.0	3,472.0	8,643.0	432.0
	San Germán.....	26,825.0	23,433.0	50,258.0	1,528.0
	District.....	47,212.5	53,479.0	100,691.5	3,053.0
11	Añasco.....	19,389.5	17,383.0	36,772.5	1,035.5
	Las Marias.....	2,983.5	7,245.0	10,228.5	683.0
	Mayaguez.....	57,053.5	33,240.0	90,293.5	2,822.5
	District.....	79,426.5	57,868.0	137,294.5	4,541.0
12	Aguada.....	6,009.5	9,254.0	15,263.5	608.5
	Aguadilla.....	31,363.5	36,352.0	67,715.5	1,933.5
	San Sebastian.....	10,873.5	20,213.0	31,086.5	968.0
	District.....	48,246.5	65,819.0	114,065.5	3,510.0
13	Camuy.....	26,964.5	26,758.5	53,723.0	1,417.0
	Isabela.....	11,574.5	22,277.0	33,851.5	865.0
	District.....	38,539.0	49,035.5	87,574.5	2,282.0
14	Arecibo.....	47,351.5	43,784.0	91,135.5	2,363.5
	Lares.....	11,572.5	16,474.0	28,046.5	981.0
	District.....	58,924.0	60,258.0	119,182.0	3,344.5
15	Adjuntas.....	15,300.0	16,031.0	31,331.0	960.0
	Utuado.....	22,781.0	25,697.0	48,478.0	1,533.0
	District.....	38,081.0	41,728.0	79,809.0	2,493.0
16	Ciales.....	9,629.5	16,761.0	26,390.5	983.5
	Manati.....	28,412.5	26,735.5	55,148.0	1,351.0
	Morovis.....	6,476.0	17,710.0	24,186.0	618.0
	District.....	45,018.0	61,206.5	106,224.5	2,952.5

TABLE IV.—*Aggregate number of days attendance of all pupils, and aggregate number of days actual teaching, common schools and special schools—Continued.*

COMMON SCHOOLS—Continued.

School district.	Municipality.	Aggregate number days attendance.			Aggregate number days actual teaching.
		Graded.	Rural.	Total.	
17	Toa Alta	19,825.0	25,052.0	44,877.0	1,189.0
	Vega Baja	23,441.5	25,991.0	49,432.5	1,209.0
	District	43,266.5	51,043.0	94,309.5	2,398.0
18	Bayamón	41,259.0	62,098.0	103,357.0	3,238.5
	Vieques	12,732.5	9,638.5	22,371.0	597.0
	Total	1,109,637.0	1,131,686.0	2,241,323.0	61,328.0

SPECIAL SCHOOLS (HIGH AND INDUSTRIAL).

School district.	Municipality.	Aggregate number days attendance.		Aggregate number days actual teaching.	
		High schools.	Industrial schools.	High schools.	Industrial schools.
1	San Juan	3,075.5	5,091.0	62.0	62.0
8	Ponce	1,543.5		63.0	
11	Mayaguez	1,221.0	3,670.5	62.0	58.0
	Total	5,840.0	8,761.5	187.0	120.0

SPECIAL SCHOOLS (NIGHT SCHOOLS).

School district.	Municipality.	Aggregate number days attendance.	Aggregate number days actual teaching.	School district.	Municipality.	Aggregate number days attendance.	Aggregate number days actual teaching.
1	San Juan	4,611	108	8	Ponce	5,627	208
				10	San German	1,430	47
2	Fajardo	3,009	60	11	Añasco	358	17
	Rio Grande	2,679	63		Mayaguez	2,798	84
	District	5,688	123		District	3,156	101
3	Humacao	1,331	58	12	Aguadilla	994	52
	San Lorenzo	2,127	58		San Sebastian	1,144	52
	District	3,458	116		District	2,138	104
4	Cayey	1,452	35	14	Lares	1,569	60
5	Guayama	292	6	15	Utuaño	1,825	62
7	Coamo	706	27	16	Manatí	460	21
	Juana Díaz	2,336	61		Total	34,748	1,079
	District	3,042	88				

TABLE IV.—Aggregate number of days attendance of all pupils, and aggregate number of days actual teaching, common schools and special schools—Continued.

SPECIAL SCHOOLS (KINDERGARTEN AND AGRICULTURAL).

School district.	Municipality.	Aggregate number days attendance.		Aggregate number days actual teaching.	
		Kinder- garten schools.	Agricul- tural schools.	Kinder- garten schools.	Agricul- tural schools.
1	Carolina.....		1,786.5		63.0
	San Juan.....	6,082.0		248.0	
3	Humacao.....		1,764.0		63.0
	San Lorenzo.....		2,327.0		62.0
	District.....		4,091.0		125.0
5	Guayama.....		1,364.0		63.0
6	Barros.....		3,361.0		122.0
8	Ponce.....	3,471.0	1,724.0	126.0	62.0
9	Lajas.....		2,279.0		61.0
	Sabana Grande.....		2,993.0		61.0
	District.....		5,272.0		122.0
10	Cabo Rojo.....		2,799.0		62.0
13	Camuy.....		1,909.5		62.0
15	Utua.....		2,232.0		59.0
17	Toa Alta.....		3,318.0		61.0
18	Bayamón.....		2,787.0		62.0
	Total.....	9,553.0	30,644.0	374.0	863.0

(Second term, 1903-4.)

COMMON SCHOOLS.

School district.	Municipality.	Aggregate number days attendance.			Aggregate number days actual teaching.
		Graded.	Rural.	Total.	
1	Carolina.....	14,051.5	31,691.0	45,742.5	1,149.0
	Rio Piedras.....	11,207.0	14,732.0	25,939.0	698.0
	San Juan.....	95,641.0	16,381.0	112,022.0	3,279.0
	District.....	120,899.5	62,804.0	183,703.5	5,126.0
2	Fajardo.....	33,808.5	17,798.0	51,606.5	1,154.0
	Naguabo.....	6,749.0	12,878.0	19,627.0	415.0
	Rio Grande.....	19,087.5	41,209.0	60,296.5	1,279.0
	District.....	59,645.0	71,885.0	131,530.0	2,848.0
3	Humacao.....	22,108.5	14,223.0	36,331.5	984.0
	San Lorenzo.....	16,794.5	14,699.0	31,493.5	903.0
	Yabucoa.....	13,155.5	14,699.0	27,854.5	722.0
	District.....	52,058.5	43,621.0	95,679.5	2,609.0
4	Agua Buenas.....	2,882.0	10,074.0	12,956.0	361.5
	Caguas.....	31,376.0	26,585.0	57,961.0	1,477.0
	Cayey.....	22,226.5	23,054.0	45,280.5	1,243.5
	District.....	56,484.5	59,713.0	116,197.5	3,082.0
5	Guayama.....	39,551.5	24,666.0	64,217.5	1,538.0
	Patillas.....	4,558.5	10,884.0	15,442.5	464.0
	District.....	44,110.0	35,550.0	79,660.0	2,002.0
6	Aibonito.....	11,717.5	12,868.0	24,585.5	658.0
	Barros.....	7,790.5	29,283.0	37,073.5	927.0
	Comerio.....	7,779.0	15,589.0	23,638.0	612.0
	District.....	27,287.0	58,010.0	85,297.0	2,197.0

TABLE IV.—Aggregate number of days attendance of all pupils, and aggregate number of days actual teaching, common schools and special schools—Continued.

COMMON SCHOOLS—Continued.

School district.	Municipality.	Aggregate number days attendance.			Aggregate number days actual teaching.
		Graded.	Rural.	Total.	
7	Coamo.....	18,493.0	33,131.0	51,624.0	1,174.0
	Juana Diaz.....	13,322.0	27,375.0	40,697.0	925.0
	Santa Isabel.....	7,655.5	4,576.0	12,231.5	310.0
	District.....	39,470.5	65,082.0	104,552.5	2,409.0
8	Ponce.....	74,835.5	8,0876.0	155,711.5	4,249.0
	Lajas.....	3,795.0	14,840.0	18,635.0	478.0
	Sabana Grande.....	15,428.0	17,044.0	32,472.0	767.5
	Yauco.....	25,241.5	31,103.0	56,344.5	1,436.0
9	District.....	44,464.5	62,987.0	107,451.5	2,681.5
	Cabo Rojo.....	13,025.0	24,020.0	37,045.0	893.0
	Maricao.....	5,759.0	7,849.0	13,608.0	357.5
	San Germán.....	20,959.0	27,651.0	48,610.0	1,277.0
10	District.....	39,743.0	59,520.0	99,263.0	2,527.5
	Añasco.....	17,092.0	17,352.0	34,444.0	950.0
	Las Marias.....	3,514.5	14,393.0	17,907.5	553.0
	Mayaguez.....	42,225.5	34,431.0	76,656.5	2,262.0
11	District.....	62,832.0	66,176.0	129,008.0	3,765.0
	Aguada.....	6,311.5	9,135.0	15,446.5	515.0
	Aguadilla.....	23,504.5	33,560.0	57,064.5	1,576.0
	San Sebastian.....	11,452.5	21,715.0	33,167.5	866.0
12	District.....	41,268.5	64,410.0	105,678.5	2,957.0
	Camuy.....	22,972.5	25,053.0	48,025.5	1,206.0
	Isabela.....	9,903.5	21,262.0	31,165.5	722.0
	District.....	32,876.0	46,315.0	79,191.0	1,928.0
13	Arecibo.....	36,973.0	43,562.0	80,535.0	2,155.0
	Lares.....	10,329.5	21,342.0	31,671.5	809.0
	District.....	47,302.5	64,904.0	112,206.5	2,964.0
	Adjuntas.....	12,929.5	16,721.0	29,650.5	813.0
14	Utua.....	18,522.5	34,262.0	52,784.5	1,404.5
	District.....	31,452.0	50,983.0	82,435.0	2,217.5
	Ciales.....	10,478.0	22,945.0	33,423.0	841.0
	Manatí.....	24,161.5	28,227.0	52,388.5	1,169.0
15	Morovis.....	4,728.0	16,277.0	21,005.0	472.0
	District.....	39,367.5	67,449.0	106,816.5	2,482.0
	Toa Alta.....	20,132.5	20,165.0	40,297.5	1,038.0
	Vega Baja.....	20,160.5	21,708.0	41,868.5	1,056.0
16	District.....	40,293.0	41,873.0	82,166.0	2,094.0
	Bayamón.....	35,215.0	57,803.0	93,018.0	2,695.5
	Vieques.....	11,101.5	6,841.5	17,943.0	487.0
	Total.....	900,706.0	1,066,802.5	1,967,508.5	51,321.0

TABLE IV.—*Aggregate number of days attendance of all pupils, and aggregate number of days actual teaching, common schools and special schools—Continued.*

SPECIAL SCHOOLS (HIGH AND INDUSTRIAL).

School district.	Municipality.	Aggregate number days attendance.		Aggregate number days actual teaching.	
		High schools.	Industrial schools.	High schools.	Industrial schools.
1	San Juan	2,210.0	4,849.5	51.0	51.0
8	Ponce	1,288.0	4,914.0	52.0	52.0
11	Mayaguez	794.0	4,707.5	46.0	56.0
14	Arecibo		4,551.0		47.0
	Total	4,292.0	19,022.0	149.0	206.0

SPECIAL SCHOOLS (NIGHT SCHOOLS).

School district.	Municipality.	Aggregate number days attendance.	Aggregate number days actual teaching.	School district.	Municipality.	Aggregate number days attendance.	Aggregate number days actual teaching.
1	San Juan	5,153	187	8	Ponce	7,129	256
				10	San Germán	1,547	51
2	{ Fajardo	2,231	47		{ Añasco	1,223	50
	{ Río Grande	1,885	50		{ Mayaguez	2,328	51
	District	4,116	97	11	District	3,551	101
3	{ Humacao	1,156	50		{ Aguadilla	1,225	52
	{ San Lorenzo	1,361	51		{ San Sebastian	1,025	52
	District	2,517	101	12	District	2,250	103
4	Cayey	1,837	50	14	Lares	1,600	54
5	Guayama	1,312	28	15	Utua	1,323	50
				16	Manatí	1,268	50
7	{ Coamo	1,295	52		Total	36,509	1,230
	{ Juana Díaz	1,611	50				
	District	2,906	102				

SPECIAL SCHOOLS (KINDERGARTEN AND AGRICULTURAL).

School district.	Municipality.	Aggregate number days attendance.		Aggregate number days actual teaching.	
		Kinder-garten schools.	Agricultural schools.	Kinder-garten schools.	Agricultural schools.
1	{ Carolina		1,048.0		51.0
	{ San Juan	5,035.0		204.0	
	District		1,048.0		51.0
3	{ Humacao		1,420.0		49.0
	{ San Lorenzo		1,745.0		51.0
	District		3,165.0		100.0
5	Guayama		1,170.0		46.0
6	Barros		3,161.0		103.0
8	Ponce	2,662.0	1,552.0	104.0	52.0
9	{ Lajas		2,155.0		52.0
	{ Sabana Grande		2,413.0		51.0
	District		4,568.0		103.0
10	Cabo Rojo		2,442.0		52.0
13	Camuy		1,763.0		52.0
15	Utua		2,328.0		51.0
17	Toa Alta		2,796.5		52.0
18	Bayamón		2,352.0		53.0
	Total	7,697.0	26,345.5	308.0	715.0

TABLE IV.—Aggregate number of days attendance of all pupils, and aggregate number of days actual teaching, common schools and special schools—Continued.

(Third term, 1903-4.)

COMMON SCHOOLS.

School district.	Municipality.	Aggregate number days attendance.			Aggregate number days actual teaching.
		Graded.	Rural.	Total.	
1	Carolina	13,856.5	30,247.0	44,103.5	1,197.0
	Rio Piedras	10,674.5	14,054.0	24,728.5	733.0
	San Juan	94,324.5	10,608.5	104,933.0	3,377.0
	District	118,855.5	54,909.5	173,765.0	5,307.0
2	Fajardo	34,553.0	18,879.0	53,432.0	1,207.0
	Naguabo	7,057.0	15,249.5	22,306.5	479.0
	Rio Grande	20,708.0	41,358.0	62,066.0	1,315.5
	District	62,318.0	75,486.5	137,804.5	3,001.5
3	Humacao	22,803.0	11,527.0	34,330.0	1,000.0
	San Lorenzo	15,013.5	15,358.0	30,371.5	975.0
	Yabucoa	14,385.0	18,930.0	33,315.0	892.0
	District	52,201.5	45,815.0	98,016.5	2,867.0
4	Agua Buenas	3,410.5	11,740.0	15,150.5	372.0
	Caguas	31,316.0	29,145.0	60,461.0	1,511.0
	Cayey	22,919.0	26,164.0	49,083.0	1,275.0
	District	57,645.5	67,049.0	124,694.5	3,156.0
5	Guayama	38,464.0	23,914.5	62,378.5	1,570.0
	Patillas	4,898.5	11,521.0	16,419.5	488.0
	District	43,362.5	35,435.5	78,798.0	2,058.0
6	Albonito	12,773.0	14,746.0	27,519.0	683.5
	Barros	8,190.5	33,778.0	41,968.5	964.0
	Comerio	7,957.0	25,374.0	33,331.0	844.0
	District	28,920.5	73,898.0	102,818.5	2,491.5
7	Coamo	19,647.5	37,344.0	56,991.5	1,224.5
	Juana Diaz	14,229.0	29,069.0	43,298.0	953.0
	Santa Isabel	8,512.5	6,298.0	14,810.5	361.0
	District	42,389.0	72,711.0	115,100.0	2,538.5
8	Ponce	79,757.5	86,737.0	166,494.5	4,528.5
9	Lajas	3,795.0	18,577.0	22,372.0	532.0
	Sabana Grande	15,733.0	15,676.0	34,409.0	740.0
	Yauco	29,167.5	29,437.0	58,604.5	1,531.0
	District	48,695.5	63,690.0	112,385.5	2,803.0
10	Cabo Rojo	14,015.5	23,786.0	37,801.5	882.5
	Maricao	6,822.0	8,633.0	15,455.0	376.0
	San Germán	21,253.0	28,260.0	49,513.0	1,321.0
	District	42,090.5	60,679.0	102,769.5	2,579.5
11	Añasco	17,293.5	17,517.0	34,810.5	976.0
	Las Marias	3,801.0	14,660.0	18,461.0	536.0
	Mayaguez	44,016.0	44,285.0	88,301.0	2,559.0
	District	65,110.5	76,462.0	141,572.5	4,071.0
12	Aguada	6,493.5	9,834.0	16,327.5	526.5
	Aguadilla	24,470.5	33,736.0	58,206.5	1,614.0
	San Sebastian	11,637.5	21,866.0	33,503.5	877.0
	District	42,601.5	65,436.0	108,037.5	3,017.5
13	Camuy	22,904.5	48,909.0	71,813.5	1,281.0
	Isabela	9,238.5	22,285.0	31,523.5	748.0
	District	32,143.0	71,194.0	103,337.0	2,029.0

TABLE IV.—Aggregate number of days attendance of all pupils, and aggregate number of days actual teaching, common schools and special schools—Continued.

COMMON SCHOOLS—Continued.

School district.	Municipality.	Aggregate number days attendance.			Aggregate number days actual teaching.
		Graded.	Rural.	Total.	
14	Arecibo	33,940.5	44,606.0	78,546.5	2,216.0
	Lares	10,582.0	19,979.0	30,561.0	789.0
	District	44,522.5	64,585.0	109,107.5	3,005.0
15	Adjuntas	13,641.5	18,043.0	31,684.5	849.0
	Utuaado	19,193.0	38,165.0	57,358.0	1,531.0
	District	32,834.5	56,208.0	89,042.5	2,380.0
16	Ciales	10,174.0	25,020.0	35,194.0	852.0
	Manatí	23,923.0	28,914.5	52,837.5	1,220.0
	Morovis	4,659.0	15,860.0	20,519.0	481.0
	District	38,756.0	69,794.5	108,550.5	2,553.0
17	Toa Alta	20,296.0	19,938.0	40,234.0	1,043.0
	Vega Baja	18,797.0	22,309.0	41,106.0	1,049.0
	District	39,093.0	42,247.0	81,340.0	2,092.0
18	Bayamón	34,353.5	69,082.0	103,435.5	2,919.5
	Vieques	10,783.0	7,463.5	18,246.5	509.0
	Total	916,433.5	1,158,882.5	2,075,316.0	53,906.5

SPECIAL SCHOOLS (HIGH AND INDUSTRIAL).

School district.	Municipality.	Aggregate number days attendance.		Aggregate number days actual teaching.	
		High schools.	Industrial schools.	High schools.	Industrial schools.
1	San Juan	2,198.5	5,378.5	54.0	54.0
8	Ponce	1,267.5	5,420.0	54.0	54.0
11	Mayaguez	766.0	5,593.5	54.0	54.0
14	Arecibo		4,587.5		54.0
	Total	4,232.0	20,979.5	162.0	216.0

SPECIAL SCHOOLS (NIGHT SCHOOLS).

School district.	Municipality.	Aggregate number days attendance.	Aggregate number days actual teaching.	School district.	Municipality.	Aggregate number days attendance.	Aggregate number days actual teaching.
1	San Juan	4,515	147	8	Ponce	6,963	261
					San Germán	1,478	52
	Fajardo	2,291	51	10			
2	Rio Grande	2,413	52		Añasco	1,400	54
	District	4,704	103	11	Mayaguez	2,338	53
					District	3,738	107
	Humacao	795	49				
3	San Lorenzo	1,440	53		Aguadilla	1,291	53
	District	2,235	102	12	San Sebastian	1,110	54
					District	2,401	107
4	Cayey	1,568	50				
5	Guayama	1,685	38	14	Lares	1,814	50
					Utuaado	951	49
	Coamo	1,371	54	15	Manatí	423	23
7	Juana Diaz	1,685	51	16			
	District	3,056	105		Total	35,531	1,194

TABLE IV.—Aggregate number of days attendance of all pupils, and aggregate number of days actual teaching, common schools and special schools—Continued.

SPECIAL SCHOOLS (KINDERGARTEN AND AGRICULTURAL).

School district.	Municipality.	Aggregate number days attendance.		Aggregate number days actual teaching.	
		Kinder-garten schools.	Agricul-tural schools.	Kinder-garten schools.	Agricul-tural schools.
1	Carolina		1,606.0		52.0
	San Juan	5,355.0		214.0	
	District		1,606.0		52.0
3	Humacao		476.0		26.0
	San Lorenzo		1,847.5		53.0
	District		2,323.5		79.0
5	Guayama		1,546.0		54.0
6	Barros		3,395.0		106.0
8	Ponce	2,159.0	1,501.0	108.0	54.0
9	Lajas		2,113.0		54.0
	Sabana Grande		2,404.0		52.0
	District		4,517.0		106.0
10	Cabo Rojo		2,126.0		54.0
13	Camuy		1,591.0		52.0
15	Utua		2,304.0		51.0
17	Toa Alta		2,819.0		54.0
18	Bayamon		2,429.0		54.0
	Total	7,514.0	26,157.5	322.0	716.0

(School Year, 1903-4.)

COMMON SCHOOLS.

School district.	Municipality.	Aggregate number days attendance.			Aggregate number days actual teaching.
		Graded.	Rural.	Total.	
1	Carolina	47,693.5	101,427.5	149,121.0	3,776.5
	Rio Piedras	38,055.5	47,622.5	85,678.0	2,263.0
	San Juan	309,071.0	40,639.5	349,710.5	10,532.5
	District	394,820.0	189,689.5	584,509.5	16,572.0
2	Fajardo	111,658.0	58,771.0	170,429.0	3,847.0
	Naguabo	23,727.5	43,975.5	67,703.0	1,517.5
	Rio Grande	66,506.0	128,156.0	194,662.0	4,208.0
	District	201,891.5	230,902.5	432,794.0	9,572.5
3	Humacao	69,532.0	44,166.0	113,698.0	3,156.0
	San Lorenzo	53,266.5	41,012.0	94,278.5	2,856.0
	Yabucoa	42,603.5	71,995.0	114,598.5	2,542.0
	District	165,402.0	157,173.0	322,575.0	8,554.0
4	Agua Buenas	13,247.0	30,897.0	44,144.0	1,240.0
	Caguas	101,020.5	83,695.0	184,715.5	4,814.0
	Cayey	73,954.5	74,291.0	148,245.5	3,942.5
	District	188,222.0	188,883.0	377,105.0	9,996.5
5	Guayama	124,429.5	75,699.5	200,129.0	4,935.0
	Patillas	14,632.5	32,608.0	47,240.5	1,455.0
	District	139,062.0	108,307.5	247,369.5	6,390.0
6	Aibonito	38,740.5	41,475.0	80,215.5	2,113.5
	Barros	25,008.5	90,834.0	115,842.5	2,959.0
	Comerio	24,947.0	58,209.0	83,156.0	2,157.0
	District	88,696.0	190,518.0	279,214.0	7,229.5

TABLE IV.—Aggregate number of days attendance of all pupils, and aggregate number of days actual teaching, common schools and special schools—Continued.

COMMON SCHOOLS—Continued.

School district.	Municipality.	Aggregate number days attendance.			Aggregate number days actual teaching.
		Graded.	Rural.	Total.	
7	Coamo.....	60,692.5	11,224.5	172,937.5	3,945.5
	Juana Díaz.....	44,943.5	87,774.0	132,717.5	2,990.0
	Santa Isabel.....	22,968.0	20,107.5	43,075.5	1,073.0
	District.....	128,604.0	220,126.5	348,730.5	8,008.5
8	Ponce.....	248,793.0	256,549.0	505,342.0	13,880.5
9	Lajas.....	16,628.0	50,593.0	67,221.0	1,622.0
	Sabana Grande.....	48,482.5	53,049.0	101,531.5	2,364.0
	Yauco.....	89,731.0	89,981.0	179,712.0	4,683.5
	District.....	154,841.5	193,623.0	348,464.5	8,669.5
10	Cabo Rojo.....	42,257.0	74,380.0	116,637.0	2,868.5
	Maricao.....	17,752.0	19,954.0	37,706.0	1,165.5
	San Germán.....	69,037.0	79,344.0	148,381.0	4,126.0
	District.....	129,046.0	173,678.0	302,724.0	8,160.0
11	Añasco.....	53,775.0	52,252.0	106,027.0	2,961.5
	Las Marias.....	10,299.0	36,298.0	46,597.0	1,772.0
	Mayaguez.....	143,295.0	111,956.0	255,251.0	7,643.5
	District.....	207,369.0	200,506.0	407,875.0	12,377.0
12	Aguada.....	18,814.5	28,223.0	47,037.5	1,650.0
	Aguadilla.....	79,338.5	103,648.0	182,986.5	5,123.5
	San Sebastian.....	33,963.5	63,794.0	97,757.5	2,711.0
	District.....	132,116.5	195,665.0	327,781.5	9,484.5
13	Camuy.....	72,841.5	100,720.5	173,562.0	3,904.0
	Isabela.....	30,716.5	65,824.0	96,540.5	2,335.0
	District.....	103,558.0	166,544.5	270,102.5	6,239.0
14	Arecibo.....	118,265.0	131,952.0	250,217.0	6,734.5
	Lares.....	32,484.0	57,795.0	90,279.0	2,579.0
	District.....	150,749.0	189,747.0	340,496.0	9,313.5
15	Adjuntas.....	41,871.0	50,795.0	92,666.0	2,622.0
	Utua.....	60,496.5	98,124.0	158,620.5	4,468.5
	District.....	102,367.5	148,919.0	251,286.5	7,090.5
16	Ciales.....	30,281.5	64,726.0	95,007.5	2,676.5
	Manatí.....	76,997.0	83,877.0	160,874.0	3,740.0
	Morovis.....	15,863.0	49,847.0	65,710.0	1,571.0
	District.....	123,141.5	198,450.0	321,591.5	7,987.5
17	Toa Alta.....	60,253.5	65,155.0	125,408.5	3,270.0
	Vega Baja.....	62,599.0	70,008.0	132,607.0	3,314.0
	District.....	122,852.5	135,163.0	257,815.5	6,584.0
18	Bayamón.....	110,827.5	188,983.0	299,810.5	8,853.5
	Vieques.....	34,617.0	23,943.5	58,560.5	1,593.0
	Total.....	2,926,776.5	3,357,371.0	6,284,147.5	166,555.5

TABLE IV.—Aggregate number of days attendance of all pupils, and aggregate number of days actual teaching, common schools and special schools—Continued.

SPECIAL SCHOOLS (HIGH AND INDUSTRIAL).

School district.	Municipality.	Aggregate number days attendance.		Aggregate number days actual teaching.	
		High schools.	Industrial schools.	High schools.	Industrial schools.
1	San Juan	7,484.0	15,319.0	167.0	167.0
8	Ponce	4,099.0	10,334.0	169.0	166.0
11	Mayaguez	2,781.0	13,971.5	162.0	168.0
14	Arecibo .....	.....	9,138.5	.....	101.0
	Total	14,364.0	48,763.0	498.0	542.0

SPECIAL SCHOOLS (NIGHT SCHOOLS).

School district.	Municipality.	Aggregate number days attendance.	Aggregate number days actual teaching.	School district.	Municipality.	Aggregate number days attendance.	Aggregate number days actual teaching.
1	San Juan	14,279	442	8	Ponce	19,719	725
				10	San German	4,455	150
	Fajardo	7,531	158				
2	Rio Grande	6,977	165		Añasco	2,981	121
	District	14,508	323	11	Mayaguez	7,464	188
					District	10,445	309
	Humacao	3,282	157				
3	San Lorenzo	4,928	162		Aguadilla	3,510	157
	District	8,210	319	12	San Sebastian	3,279	157
					District	6,789	314
4	Cayey	4,857	135				
5	Guayama	3,289	72	14	Lares	4,983	164
				15	Utua	4,099	161
	Coamo	3,372	133	16	Manatí	2,151	94
7	Juana Díaz	5,632	162		Total	106,788	3,503
	District	9,004	295				

SPECIAL SCHOOLS (KINDERGARTEN AND AGRICULTURAL).

School district.	Municipality.	Aggregate number days attendance.		Aggregate number days actual teaching.	
		Kinder-garten schools.	Agricultural schools.	Kinder-garten schools.	Agricultural schools.
1	Carolina .....	.....	4,440.5	.....	166.0
	San Juan	16,472.0	.....	666.0	.....
	District .....	.....	4,440.5	.....	166.0
	Humacao .....	.....	3,660.0	.....	138.0
3	San Lorenzo .....	.....	5,919.5	.....	166.0
	District .....	.....	9,579.5	.....	304.0
5	Guayama .....	.....	4,080.0	.....	163.0
6	Barros .....	.....	9,917.0	.....	331.0
8	Ponce	8,292.0	4,777.0	338.0	168.0
	Lajas .....	.....	6,547.0	.....	167.0
9	Sabana Grande .....	.....	7,810.0	.....	164.0
	District .....	.....	14,357.0	.....	331.0
10	Cabo Rojo .....	.....	7,367.0	.....	168.0
13	Camuy .....	.....	5,263.5	.....	166.0
15	Utua .....	.....	6,864.0	.....	161.0
17	Toa Alta .....	.....	8,933.5	.....	167.0
18	Bayamón .....	.....	7,568.0	.....	169.0
	Grand total	24,764.0	83,147.0	1,004.0	2,294.0

TABLE V.—Average enrollment per school, average daily attendance per school, and average number of days actual teaching per school for the common schools, and for each respective class of special schools.

(First term, 1903-4.)

COMMON SCHOOLS.

School district.	Location.	Average enrollment.		Average daily attendance.		Average number days actual teaching.	
		Municipality.	District.	Municipality.	District.	Municipality.	District.
1	Carolina.....	52.42		41.43		62.19	
	Rio Piedras.....	54.50		42.08		59.43	
	San Juan.....	44.85		34.25		63.55	
			48.02		36.99		62.64
2	Fajardo.....	52.35		44.00		64.61	
	Naguabo.....	50.20		33.14		62.35	
	Rio Grande.....	56.00		44.81		59.76	
			53.63		43.88		62.05
3	Humacao.....	48.05		36.72		61.68	
	San Lorenzo.....	40.95		33.14		48.90	
	Yabucoa.....	42.53		37.68		61.87	
			43.89		35.87		57.00
4	Aguas Buenas.....	42.56		31.66		56.28	
	Caguas.....	46.24		36.30		62.97	
	Cayey.....	45.96		37.78		57.04	
			45.60		36.27		59.66
5	Guayama.....	51.17		40.25		60.90	
	Patillas.....	42.44		30.57		55.89	
			49.15		37.34		59.74
6	Aibonito.....	45.38		36.41		59.38	
	Barros.....	39.42		34.46		50.86	
	Comerio.....	43.17		37.36		58.42	
			42.09		36.24		55.24
7	Coamo.....	52.80		41.32		61.88	
	Juana Diaz.....	55.56		43.82		61.77	
	Santa Isabel.....	44.50		39.88		50.25	
			52.48		42.14		60.02
8	Ponce.....	41.87		35.89		59.34	
			41.87		35.89		59.34
9	Lajas.....	51.50		42.83		61.20	
	Sabana Grande.....	47.67		43.96		57.10	
	Yauco.....	47.44		37.15		59.19	
			48.26		40.39		57.13
10	Cabo Rojo.....	51.59		38.23		64.29	
	Maricao.....	35.14		20.01		61.71	
	San Germán.....	42.85		32.89		61.12	
			44.78		32.98		62.31
11	Añasco.....	46.88		35.51		60.91	
	Las Marias.....	25.91		14.81		62.09	
	Mayaguez.....	46.28		31.99		65.64	
			43.27		30.23		63.96
12	Aguada.....	40.90		25.08		60.85	
	Aguadilla.....	50.09		35.02		60.42	
	San Sebastian.....	50.41		32.11		56.94	
			48.63		32.50		59.49
13	Camuy.....	46.88		37.93		54.50	
	Isabela.....	52.29		38.90		61.79	
			48.77		38.20		57.05
14	Arecibo.....	46.98		38.56		54.97	
	Lares.....	44.12		28.59		61.31	
			46.20		35.64		56.69
15	Adjuntas.....	42.62		32.64		60.00	
	Utüado.....	47.52		31.62		61.32	
			45.61		32.01		60.29
16	Ciales.....	41.75		26.83		61.47	
	Manatí.....	54.14		41.19		61.41	
	Morovis.....	52.20		39.14		61.80	
			49.60		35.98		61.51
17	Toa Alta.....	53.60		37.73		59.45	
	Vega Baja.....	53.50		40.89		60.45	
			53.57		39.58		59.95
18	Bayamón.....	44.82		31.92		56.82	
	Vieques.....	50.90		37.47		59.70	
			50.90		37.47		59.70
	General average.....		46.95		36.55		59.77

TABLE V.—Average enrollment per school, average daily attendance per school, and average number of days actual teaching per school for the common schools and for each respective class of special schools—Continued.

SPECIAL SCHOOLS (HIGH AND INDUSTRIAL).

School district.	Municipality.	Average enrollment.		Average daily attendance.		Average number days actual teaching.	
		High schools.	Industrial schools.	High schools.	Industrial schools.	High schools.	Industrial schools.
1	San Juan	59.00	103.00	49.60	82.11	62.00	62.00
8	Ponce	28.00		24.50		63.00	
11	Mayaguez	21.00	96.00	19.69	63.28	62.00	58.00
	Total	36.00	99.50	31.23	73.01	62.33	60.00

SPECIAL SCHOOLS (NIGHT SCHOOLS).

School district.	Municipality.	Average enrollment.	Average daily attendance.	Average number days actual teaching.	School district.	Municipality.	Average enrollment.	Average daily attendance.	Average number days actual teaching.
1	San Juan	54.00	42.69	36.00	8	Ponce	38.40	27.05	41.60
					10	San German	74.00	30.43	47.00
2	{ Fajardo	62.00	50.15	60.00					
	{ Rio Grande	59.00	42.37	63.00		{ Añasco	31.00	21.06	17.00
	{ District	60.50	46.32	61.50	11	{ Mayaguez	42.50	33.31	42.00
						{ District	38.67	31.25	33.67
3	{ Humacao	30.00	22.95	58.00					
	{ San Lorenzo	57.00	36.67	58.00	12	{ Aguadilla	53.00	19.12	52.00
	{ District	43.50	29.81	58.00		{ San Sebastian	36.00	22.00	52.00
						{ District	44.50	20.56	52.00
4	Cayey	48.00	41.49	35.00					
5	Guayama	52.00	48.67	6.00	14	Lares	74.00	26.15	60.00
					15	Utua	58.00	29.44	62.00
7	{ Coamo	40.00	26.15	27.00	16	Manatí	40.00	21.90	21.00
	{ Juana Diaz	57.00	38.30	61.00					
	{ District	48.50	34.57	44.00		General average	48.50	32.20	43.16

SPECIAL SCHOOLS (KINDERGARTEN AND AGRICULTURAL).

School district.	Municipality.	Average enrollment.		Average daily attendance.		Average number of days actual teaching.	
		Kinder- garten schools.	Agricul- tural schools.	Kinder- garten schools.	Agricul- tural schools.	Kinder- garten schools.	Agricul- tural schools.
1	{ Carolina		45.00		28.36		63.00
	{ San Juan	30.75		24.53		62.00	
	{ District		45.00		28.36		63.00
3	{ Humacao		42.00		28.00		63.00
	{ San Lorenzo		50.00		37.53		62.00
	{ District		46.00		32.74		62.50
5	Guayama		34.00		21.65		63.00
6	Barros		39.50		27.55		61.00
8	Ponce	30.00	33.00	27.55	27.81	63.00	62.00
9	{ Lajas		57.00		37.36		61.00
	{ Sabana Grande		52.00		49.07		61.00
	{ District		54.50		43.21		61.00
10	Cabo Rojo		58.00		45.15		62.00
13	Camuy		41.00		30.80		62.00
15	Utua		65.00		37.83		59.00
17	Toa Alta		71.00		54.39		61.00
18	Bayamón		58.00		44.95		62.00
	General average	30.50	48.93	25.54	35.51	62.33	61.64

TABLE V.—Average enrollment per school, average daily attendance per school, and average number of days actual teaching per school for the common schools and for each respective class of special schools—Continued.

SPECIAL SCHOOLS (ISLAND).

	Aggregate number days attendance.	Aggregate number days actual teaching.	Average enrollment.	Average daily attendance.	Average number days actual teaching.
High schools	5,840.00	187.00	36.00	31.23	62.33
Industrial schools	8,761.50	120.00	99.50	73.01	60.00
Night schools	34,748.00	1,079.00	48.50	32.20	43.16
Kindergarten schools	9,553.00	374.00	30.50	25.54	62.33
Agricultural schools	30,644.00	863.00	48.93	35.51	61.64
Total	89,546.50	2,623.00	47.70	34.10	52.46
Common schools	2,241,323.00	61,328.00	46.95	36.55	59.77
All schools	2,330,869.50	63,951.00	46.99	36.45	59.43

(Second term, 1903-4.)

COMMON SCHOOLS.

School district.	Location.	Average enrollment.		Average daily attendance.		Average number days actual teaching.	
		Municipality.	District.	Municipality.	District.	Municipality.	District.
1	Carolina	51.39		39.80		49.96	
	Rio Piedras	49.29		37.18		49.86	
	San Juan	39.26		34.16		50.45	
			43.37		35.82		50.26
2	Fajardo	53.74		44.72		50.17	
	Naguabo	56.67		47.29		46.11	
	Rio Grande	56.35		47.17		49.19	
			55.36		46.25		49.12
3	Humacao	49.85		36.92		49.20	
	San Lorenzo	47.05		34.88		45.15	
	Yabucoa	45.47		38.58		48.13	
			47.64		36.67		47.44
4	Agua Buena	46.86		35.84		51.64	
	Caguas	50.21		39.45		50.93	
	Cayey	47.56		36.24		49.74	
			48.72		37.70		50.52
5	Guayama	52.67		41.75		51.27	
	Patillas	45.11		33.28		51.56	
			50.92		39.79		51.33
6	Aibonito	47.00		37.35		50.62	
	Barros	52.11		39.99		51.50	
	Comerio	44.75		38.62		51.00	
			48.51		38.82		51.09
7	Coamo	56.87		43.97		51.44	
	Juana Diaz	56.28		44.00		51.39	
	Santa Isabel	56.86		39.46		44.30	
			56.65		43.40		50.19
8	Ponce	42.98		36.65		50.58	
			42.98		36.65		50.58
9	Lajas	50.80		38.99		47.80	
	Sabana Grande	48.07		42.31		51.17	
	Yauco	47.10		39.24		49.51	
			48.06		40.07		49.65
10	Cabo Rojo	55.24		41.49		52.53	
	Maricao	53.14		38.06		51.07	
	San Germán	50.28		38.07		51.40	
			52.41		39.28		51.58
11	Añasco	49.58		36.23		50.00	
	Las Marias	50.00		32.38		50.27	
	Mayaguez	45.83		33.89		49.17	
			47.37		34.27		49.54
12	Aguada	47.60		30.00		51.50	
	Aguadilla	57.09		35.76		50.84	
	San Sebastian	60.00		38.17		50.94	
			56.31		35.74		50.98
13	Camuy	52.37		39.82		50.25	
	Isabela	54.71		43.16		51.57	
			53.24		41.02		50.74
14	Arecibo	47.60		37.37		48.95	
	Lares	52.50		39.15		50.56	
			48.96		37.86		49.40

TABLE V.—Average enrollment per school, average daily attendance per school, and average number of days actual teaching per school for the common schools and for each respective class of special schools—Continued.

COMMON SCHOOLS—Continued

School district.	Location.	Average enrollment.		Average daily attendance.		Average number days actual teaching.	
		Municipality.	District.	Municipality.	District.	Municipality.	District.
15	{ Adjuntas	47.38	49.24	36.48	37.22	50.81	49.27
	{ Utuado	50.28		37.58		48.43	
16	{ Ciales	56.00	56.94	39.74	43.04	52.56	51.71
	{ Manatí	58.04		44.81		50.83	
	{ Morovis	55.78		44.50		52.44	
17	{ Toa Alta	51.55	52.30	38.82	39.24	51.90	52.35
	{ Vega Baja	53.35		39.65		52.80	
18	Bayamón	45.91	45.91	34.58	34.58	49.00	49.00
	Vieques	47.20		36.48		48.70	
	General average	47.20		36.48		48.70	
			49.52		38.34		50.17

SPECIAL SCHOOLS (HIGH AND INDUSTRIAL).

School district.	Municipality.	Average enrollment.		Average daily attendance.		Average number days actual teaching.	
		High schools.	Industrial schools.	High schools.	Industrial schools.	High schools.	Industrial schools.
1	San Juan	48.00	119.00	43.34	95.09	51.00	51.00
8	Ponce	27.00	110.00	24.78	94.50	52.00	52.00
11	Mayaguez	21.00	151.00	17.43	84.06	46.00	56.00
14	Arecibo .....	.....	135.00	.....	96.83	.....	47.00
	Total	32.00	128.75	28.99	92.34	49.67	51.50

SPECIAL SCHOOLS (NIGHT SCHOOLS).

School district.	Municipality.	Average enrollment.	Average daily attendance.	Average number days actual teaching.	School district.	Municipality.	Average enrollment.	Average daily attendance.	Average number days actual teaching.
1	San Juan	38.50	27.55	46.75	8	Ponce	39.80	27.85	51.20
					10	San Germán	53.00	30.33	51.00
	{ Fajardo	56.00	47.47	47.00		{ Añasco	61.00	24.46	50.00
2	{ Río Grande	57.00	37.70	50.00		{ Mayaguez	66.00	45.64	51.00
	{ District	56.50	42.43	48.50	11	{ District	63.50	35.16	50.50
	{ Humacao	43.00	23.12	50.00		{ Aguadilla	68.00	23.55	52.00
3	{ San Lorenzo	48.00	26.69	51.00		{ San Sebastian	47.00	20.10	51.00
	{ District	45.50	24.93	50.50	12	{ District	57.50	21.84	51.50
4	Cayey	57.00	36.74	50.00					
5	Guayama	87.00	46.85	28.00	14	Lares	51.00	29.63	54.00
					15	Utuado	57.00	26.46	50.00
	{ Coamo	45.00	24.90	52.00	16	Manatí	49.00	25.36	50.00
7	{ Juana Díaz	49.00	32.22	50.00		General average	49.88	29.68	49.20
	{ District	47.00	28.49	51.00					

TABLE V.—Average enrollment per school, average daily attendance per school, and average number of days actual teaching per school for the common schools and for each respective class of special schools—Continued.

SPECIAL SCHOOLS (KINDERGARTEN AND AGRICULTURAL).

School district.	Municipality.	Average enrollment.		Average daily attendance.		Average number of days actual teaching.	
		Kinder- garten schools.	Agricul- tural schools.	Kinder- garten schools.	Agricul- tural schools.	Kinder- garten schools.	Agricul- tural schools.
1	Carolina.....		40.00		20.55		51.00
	San Juan.....	33.50		24.63		51.00	
	District.....		40.00		20.55		51.00
3	Humacao.....		44.00		28.97		49.00
	San Lorenzo.....		48.00		34.21		51.00
	District.....		46.00		31.65		50.00
5	Guayama.....		44.00		25.43		46.00
6	Barros.....		39.00		30.70		51.50
8	Ponce.....	30.00	33.00	25.60	29.85	52.00	52.00
9	Lajas.....		54.00		41.44		52.00
	Sabana Grande.....		51.00		47.31		52.00
	District.....		52.50		44.35		52.00
10	Cabo Rojo.....		62.00		46.96		52.00
13	Camuy.....		44.00		33.90		52.00
15	Utua.....		60.00		45.64		51.00
17	Toa Alta.....		65.00		53.77		52.00
18	Bayamón.....		55.00		44.38		53.00
	General average.....	32.33	48.43	24.99	36.71	51.33	51.07

SPECIAL SCHOOLS (ISLAND).

	Aggregate number days attendance.	Aggregate number days actual teach- ing.	Average enroll- ment.	Average daily attend- ance.	Average number days actual teaching.
High school.....	4,292.00	149.00	32.00	28.99	49.67
Industrial schools.....	19,022.00	206.00	128.75	92.34	51.50
Night schools.....	36,509.00	1,230.00	49.88	29.68	49.20
Kindergarten schools.....	7,697.00	308.00	32.33	24.99	51.33
Agricultural schools.....	26,345.50	715.00	48.43	36.71	51.07
Total.....	93,865.50	2,608.00	52.50	35.99	50.15
Common schools.....	1,967,508.50	51,321.00	49.52	38.34	50.17
All schools.....	2,061,374.00	53,929.00	49.66	38.34	50.17

(Third term, 1903-4.)

COMMON SCHOOLS.

School dis- trict.	Location.	Average enroll- ment.		Average daily attendance.		Average number days actual teach- ing.	
		Municip- ality.	District.	Municip- ality.	District.	Municip- ality.	District.
1	Carolina.....	47.70		36.85		52.04	
	Rio Piedras.....	44.64		33.73		52.36	
	San Juan.....	37.75		31.07		53.60	
			41.00		32.74		53.07
2	Fajardo.....	51.21		44.27		52.48	
	Naguabo.....	56.44		46.57		53.22	
	Rio Grande.....	54.31		47.17		50.60	
			53.41		45.91		51.75
3	Humacao.....	44.75		34.33		50.00	
	San Lorenzo.....	43.20		31.15		48.75	
	Yabucoa.....	44.40		37.46		53.47	
			44.09		34.19		52.13

TABLE V.—Average enrollment per school, average daily attendance per school, and average number of days actual teaching per school for the common schools and for each respective class of special schools—Continued.

COMMON SCHOOLS—Continued.

School district.	Location.	Average enrollment.		Average daily attendance.		Average number days actual teaching.	
		Municipality.	District.	Municipality.	District.	Municipality.	District.
4	Agua8 Buenas	47.86		40.78		53.14	
	Caguas	50.59		40.02		52.13	
	Cayey	47.50		38.56		53.04	
5	Guayama	50.93	49.01	39.73	39.51	52.33	52.60
	Patillas	44.00		33.64		54.22	
6	Aibonito	48.84	49.33	40.26	38.29	52.58	52.77
	Barros	52.22		43.54		53.56	
	Comerio	44.17		39.48		54.22	
7	Coamo	53.57	48.95	46.54	41.27	53.22	53.09
	Juana Díaz	54.78		45.42		52.92	
	Santa Isabel	51.43		41.01		51.57	
8	Ponce	42.93	53.71		45.35		52.89
9	Lajas	51.40		36.76		52.66	
	Sabana Grande	46.64	42.93	42.05	36.76	53.20	52.66
	Yauco	45.17		42.44		52.86	
10	Cabo Rojo	51.77	46.74	38.93	40.09	52.80	52.89
	Maricao	46.71		42.83		51.91	
	San Germán	47.80		31.10		53.71	
11	Añasco	45.47	49.02	37.40	39.84	52.85	52.64
	Las Marias	45.30		35.66		51.37	
	Mayaguez	41.43		34.40		53.60	
12	Agua8a	49.90	42.97	34.50	34.77	55.63	54.30
	Aguadilla	59.65		31.01		52.65	
	San Sebastian	62.77		36.06		52.06	
13	Camuy	49.59	58.88	38.20	35.80	51.60	52.03
	Isabela	52.29		40.73		53.38	
				42.14		53.43	
14	Arecibo	45.86	50.58		41.26		53.39
	Lares	51.07		35.44		51.53	
				38.73		52.60	
15	Adjuntas	53.44	47.20		36.39		51.81
	Utua8o	53.69		37.32		53.06	
				37.46		52.80	
16	Ciales	53.44	55.67		37.41		52.89
	Manatí	53.69		41.31		53.62	
	Morovis	55.67		43.30		53.04	
17	Toa Alta	48.45	53.98	42.66	42.51	53.44	53.19
	Vega Baja	49.60		38.58		52.15	
				39.19		52.45	
18	Bayamón	46.22	49.02		38.81		52.30
	Vieques	43.80		35.43		53.08	
				35.84		50.90	
	General average		47.62		38.49		52.95

SPECIAL SCHOOLS (HIGH AND INDUSTRIAL).

School district.	Municipality.	Average enrollment.		Average daily attendance.		Average number days actual teaching.	
		High schools.	Industrial schools.	High schools.	Industrial schools.	High schools.	Industrial schools.
1	San Juan	45.00	115.00	40.71	97.75	54.00	54.00
8	Ponce	26.00	112.00	23.49	100.37	54.00	54.00
11	Mayaguez	16.00	143.00	14.20	103.57	54.00	54.00
14	Arecibo		116.00		84.95		54.00
	General average	29.00	121.50	26.12	97.22	54.00	54.00

TABLE V.—Average enrollment per school, average daily attendance per school, and average number of days actual teaching per school for the common schools and for each respective class of special schools—Continued.

SPECIAL SCHOOLS (NIGHT SCHOOLS).

School district.	Municipality.	Average enrollment.	Average daily attendance.	Average number days actual teaching.	School district.	Municipality.	Average enrollment.	Average daily attendance.	Average number days actual teaching.
1	San Juan	49.67	30.71	49.00	8	Ponce	34.20	26.64	52.20
					10	San Germán	45.00	28.42	52.00
2	{Fajardo	61.00	44.92	51.00					
	{Rio Grande	50.00	46.40	52.00	11	{Añasco	66.00	25.93	54.00
						{Mayaguez	57.00	44.11	53.00
	District	55.50	45.67	51.50		District	61.50	34.93	53.50
3	{Humacao	36.00	16.22	49.00	12	{Aguadilla	80.00	24.35	53.00
	{San Lorenzo	53.00	27.17	53.00		{San Sebastian	54.00	20.55	54.00
	District	44.50	21.91	51.00		District	67.00	22.44	53.50
4	Cayey	47.00	31.36	50.00	14	Lares	60.00	36.28	50.00
5	Guayama	76.00	44.34	38.00	15	Utua	42.00	19.40	49.00
					16	Manatí	35.00	18.40	23.00
7	{Coamo	34.00	25.38	54.00		General average	48.78	29.75	49.75
	{Juana Díaz	53.00	33.03	51.00					
	District	43.50	29.11	52.50					

(Third term, 1903-4.)

SPECIAL SCHOOLS (KINDERGARTEN AND AGRICULTURAL).

School district.	Municipality.	Average enrollment.		Average daily attendance.		Average number days actual teaching.	
		Kinder- garten schools.	Agricul- tural schools.	Kinder- garten. schools.	Agricul- tural schools.	Kinder- garten. schools.	Agricul- tural schools.
1	{Carolina		47.00		30.88		52.00
	{San Juan	32.75		25.02		53.50	
	District		47.00		30.88		52.00
3	{Humacao		46.00		18.30		26.00
	{San Lorenzo		50.00		34.86		53.00
	District		48.00		29.41		38.50
5	Guayama		46.00		28.62		54.00
6	Barros		37.00		32.03		53.00
8	Ponce	30.00	29.00	20.00	27.80	54.00	54.00
9	{Lajas		47.00		39.13		54.00
	{Sabana Grande		48.00		46.23		52.00
	District		47.50		42.61		53.00
10	Cabo Rojo		54.00		39.37		54.00
13	Camuy		39.00		30.59		52.00
15	Utua		60.00		45.17		51.00
17	Toa Alta		61.00		52.20		54.00
18	Bayamon		51.00		44.98		54.00
	General average	31.83	46.57	23.30	36.53	53.67	51.14

TABLE V.—Average enrollment per school, average daily attendance per school, and average number of days actual teaching per school for the common schools and for each respective class of special schools—Continued.

SPECIAL SCHOOLS (ISLAND).

	Aggregate number days attendance.	Aggregate number days actual teach- ing.	Average enroll- ment.	Average daily at- tendance.	Average number days actual teaching.
High schools	4,232.00	162.00	29.00	26.12	54.00
Industrial schools	20,979.50	216.00	121.50	97.22	54.00
Night schools	35,531.00	1,194.00	48.78	29.75	49.75
Kindergarten schools	7,514.00	322.00	31.83	23.30	53.67
Agricultural schools	26,157.50	716.00	46.57	36.53	51.14
Total	94,414.00	2,610.00	50.69	36.17	51.18
Common schools	2,075,316.00	53,906.50	47.92	38.49	52.95
All schools	2,169,730.00	56,516.50	48.06	38.39	52.86

(School year 1903-4.)

COMMON SCHOOLS.

School dis- trict.	Location.	Average enroll- ment.		Average daily attendance.		Average number days actual teaching.	
		Municip- ality.	District.	Municip- ality.	District.	Municip- ality.	District.
1	Carolina	59.48	54.26	39.46	35.27	164.20	154.88
	Rio Piedras	61.29		37.86		161.64	
	San Juan	50.87		33.29		150.46	
2	Fajardo	61.70	63.43	44.30	45.22	167.26	159.54
	Naguabo	64.00		44.61		151.75	
	Rio Grande	64.77		46.26		155.85	
3	Humacao	57.00	55.64	36.02	37.47	157.50	152.75
	San Lorenzo	58.24		33.02		136.00	
	Yabucoa	50.13		45.08		169.46	
4	Agua Buenas	56.57	60.56	35.60	37.72	137.78	158.67
	Caguas	61.76		38.37		166.00	
	Cayey	60.28		37.60		157.70	
5	Guayama	60.43	58.03	40.55	38.71	164.50	163.85
	Patillas	50.00		32.40		161.44	
	Aibonito	61.31		37.95		162.58	
6	Barros	51.90	53.63	39.15	38.62	140.81	157.16
	Comerio	48.42		38.56		179.75	
	Coamo	61.87		43.83		157.82	
7	Juana Diaz	63.50	63.10	44.38	43.54	166.11	157.03
	Santa Isabel	65.87		40.14		134.11	
	Ponce	49.76		36.47		150.87	
9	Lajas	59.00	49.76	41.43	36.47	162.20	150.87
	Sabana Grande	52.27		42.53		157.60	
	Yauco	53.27		38.37		156.11	
10	Cabo Rojo	66.59	54.04	40.66	40.19	168.74	157.63
	Maricao	64.71		32.35		166.50	
	San Germán	54.32		35.96		165.40	
11	Añasco	53.58	60.06	35.83	37.09	155.87	166.53
	Las Marias	56.55		26.24		161.10	
	Mayaguez	62.10		33.39		159.24	
12	Aguada	49.90	59.23	28.51	32.95	165.00	158.68
	Aguadilla	58.81		35.71		160.11	
	San Sebastian	62.77		36.06		159.47	
13	Camuy	59.75	58.44	44.45	34.56	150.15	160.40
	Isabela	69.71		41.34		166.80	
			63.42		43.29		155.97

TABLE V.—Average enrollment per school, average daily attendance per school, and average number of days actual teaching per school for the common schools and for each respective class of special schools—Continued.

COMMON SCHOOLS—Continued.

School district.	Location.	Average enrollment.		Average daily attendance.		Average number days actual teaching.	
		Municipality.	District.	Municipality.	District.	Municipality.	District.
14	Arecibo	54.16	56.28	37.15	36.56	149.65	152.68
	Lares	62.19		35.06		161.31	
15	Adjuntas	56.25	59.38	35.34	35.44	163.88	157.56
	Utua do	61.10		35.49		154.15	
16	Ciales	69.50	66.98	35.12	40.26	167.28	163.10
	Manatí	65.83		43.02		162.61	
	Morovis	65.44		41.83		157.10	
17	Toa Alta	62.60	61.35	38.35	39.15	163.50	164.60
	Vega Baja	60.10		39.62		165.70	
18	Bayamón	56.04	56.04	33.86	33.86	150.06	150.06
	Vieques	66.40		36.76		144.82	
	General average						
			58.02		37.73		157.12

SPECIAL SCHOOLS (HIGH AND INDUSTRIAL).

School district.	Municipality.	Average enrollment.		Average daily attendance.		Average number days actual teaching.	
		High schools.	Industrial schools.	High schools.	Industrial schools.	High schools.	Industrial schools.
1	San Juan	61.00	159.00	44.81	91.72	167.00	167.00
8	Ponce	29.00	116.00	24.25	97.50	169.00	106.00
11	Mayaguez	22.00	187.00	17.25	82.56	162.00	168.00
14	Arecibo		142.00		90.48		101.00
	Total	37.33	151.00	28.84	89.97	166.00	135.50

SPECIAL SCHOOLS (NIGHT SCHOOLS).

School district.	Municipality.	Average enrollment.	Average daily attendance.	Average number days actual teaching.	School district.		Average enrollment.	Average daily attendance.	Average number days actual teaching.
1	San Juan	61.25	32.31	110.50	8	Ponce	54.20	27.18	145.00
					10	San Germán	88.00	29.63	150.00
2	Fajardo	76.00	47.67	158.00	11	Añasco	66.00	24.63	121.00
	Río Grande	74.00	42.28	165.00		Mayaguez	54.00	39.70	94.00
	District	75.00	44.92	161.50		District	58.00	33.80	.....
3	Humacao	68.00	20.56	157.00	12	Aguadilla	80.00	22.35	157.00
	San Lorenzo	73.00	30.41	162.00		San Sebastian	54.00	20.88	157.00
	District	68.00	25.74	159.50		District	67.00	21.59	.....
4	Cayey	88.00	35.97	135.00	14	Lares	88.00	30.38	164.00
5	Guayama	88.00	45.68	72.00	15	Utua do	77.00	25.45	161.00
7	Coamo	50.00	25.35	133.00	16	Manatí	74.00	22.88	94.00
	Juana Díaz	83.00	34.76	162.00		General average	67.15	30.48	134.73
	District	66.50	30.52	147.50					

TABLE V.—Average enrollment per school, average daily attendance per school, and average number of days actual teaching per school for the common schools and for each respective class of special schools—Continued.

SPECIAL SCHOOLS (KINDERGARTEN AND AGRICULTURAL).

School district.	Municipality.	Average enrollment.		Average daily attendance.		Average number days actual teaching.	
		Kinder- garten schools.	Agricul- tural schools.	Kinder- garten schools.	Agricul- tural schools.	Kinder- garten schools.	Agricul- tural schools.
1	Carolina		53.00		26.75		166.00
	San Juan	32.95		24.73		166.50	
	District		53.00		26.75		166.00
3	Humacao		132.00		26.52		138.00
	San Lorenzo		45.00		35.66		166.00
	District		88.50		31.51		152.00
5	Guayama		51.00		25.03		163.00
6	Barros		44.00		29.96		165.50
8	Ponce	32.00	34.00	24.53	28.43	169.00	168.00
9	Lajas		59.00		39.20		167.00
	Sabana Grande		54.00		47.60		164.00
	District		56.50		43.37		165.50
10	Cabo Rojo		76.00		43.85		168.00
13	Camuy		44.00		31.70		166.00
15	Utua		70.00		42.63		161.00
17	Toa Alta		76.00		53.49		167.00
18	Bayamón Island		71.00		44.78		169.00
	General average	32.50	60.93	24.67	36.24	167.33	163.86

SPECIAL SCHOOLS (ISLAND).

	Aggregate number days attendance.	Aggregate number days actual teaching.	Average enroll- ment.	Average daily at- tendance.	Average number days actual teaching.
High schools	14,364.00	498.00	37.33	28.84	166.00
Industrial schools	48,763.00	542.00	151.00	89.97	135.50
Night schools	106,788.00	3,503.00	67.15	30.48	134.73
Kindergraten schools	24,764.00	1,004.00	32.50	24.67	167.33
Agricultural schools	83,147.00	2,294.00	60.93	36.24	163.86
Total	277,826.00	7,841.00	66.23	35.43	147.94
Common schools	6,284,147.50	166,555.50	58.02	37.73	157.12
All schools	6,561,973.50	174,396.50	58.42	37.62	156.68

TABLE VI.—Average number of pupils taught each day, common schools^a and special schools, by municipalities and school districts, and for the island, showing the averages for the common schools and for each class of special schools, and total averages for same for the island.

(First term, 1903-4.)

COMMON SCHOOLS AND SPECIAL SCHOOLS.

School district.	Location.	Common schools.		High schools.	Industrial schools.	Night schools.		Agricultural schools.		Kindergarten schools.
		Municipality.	District.			Municipality.	District.	Municipality.	District.	
1	Carolina	952.89	3,631.26	.....	.....	.....	128.07	28.36	.....	98.12
	Rio Piedras	589.12		.....	.....	.....		.....	.....
	San Juan	2,089.25		49.60	82.11	128.07		.....	.....
2	Fajardo	1,012.00	2,635.17	.....	.....	50.15	92.52	.....	23.36	.....
	Naguabo	413.30		.....	.....	.....		.....	.....	.....
	Rio Grande	1,209.87		.....	.....	42.37		.....	.....	.....
3	Humacao	697.68	2,225.68	.....	.....	22.95	59.62	28.00	.....	.....
	San Lorenzo	662.80		.....	.....	36.67		37.53	.....	.....
	Yabucoa	865.20		.....	.....	.....		.....	65.53	.....
4	Aguas Buenas	284.94	2,282.14	.....	.....	.....	41.49	.....	.....	.....
	Caguas	1,052.70		.....	.....	41.49		.....	.....	.....
	Cayey	944.50		.....	.....	.....		.....	.....	.....
5	Guayama	1,207.50	1,482.63	.....	.....	48.67	48.67	21.65	.....	.....
	Patillas	275.13		.....	.....	.....		.....	21.65	.....
	Aibonito	473.33		.....	.....	.....		55.10	.....	.....
6	Barros	723.66	1,645.31	.....	.....	.....	.....	.....	55.10	.....
	Comerio	448.32		.....	.....	.....		.....	.....	.....
	Coamo	1,033.00		.....	.....	26.15		.....	.....	.....
7	Juana Diaz	748.76	2,100.80	.....	.....	38.30	64.45	.....	.....	.....
	Santa Isabel	319.04		.....	.....	.....		.....	.....	.....
	Ponce	3,086.54		24.50	.....	135.25		27.81	27.81	55.10
8	Lajas	428.30	2,165.05	.....	.....	.....	.....	37.36	.....	.....
	Sabana Grande	659.40		.....	.....	.....		49.07	.....	.....
	Yauco	1,077.35		.....	.....	.....		.....	86.43	.....
9	Cabo Rojo	649.91	1,612.23	.....	.....	.....	30.43	45.15	.....	.....
	Maricao	140.07		.....	.....	30.43		.....	45.15	.....
	San Germán	822.25		.....	.....	.....		.....	.....	.....
10	Añasco	603.67	2,142.15	.....	.....	21.06	87.68	.....	.....	.....
	Las Marias	162.91		19.69	63.28	66.62		.....	.....	.....
	Mayaguez	1,375.57		.....	.....	.....		.....	.....	.....
11	Aguada	250.80	1,917.31	.....	.....	.....	41.12	.....	.....	.....
	Aguadilla	1,120.64		.....	.....	19.12		.....	.....	.....
	San Sebastian	545.87		.....	.....	22.00		.....	.....	.....
12	Camuy	986.18	1,530.78	.....	.....	.....	26.15	30.80	.....	.....
	Isabela	544.60		.....	.....	.....		.....	30.80	.....
	Arecibo	1,657.48		.....	.....	26.15		.....	.....	.....
13	Lares	457.44	2,114.92	.....	.....	.....	29.44	.....	.....	.....
	Adjuntas	522.24		.....	.....	.....		37.83	.....	.....
	Ututo	790.50		.....	.....	29.44		.....	37.83	.....
14	Ciales	429.28	1,312.74	.....	.....	.....	21.90	.....	.....	.....
	Manatí	906.18		.....	.....	21.90		.....	.....	.....
	Morovis	391.40		.....	.....	.....		.....	.....	.....
15	Toa Alta	754.60	1,726.86	.....	.....	.....	.....	54.39	.....	.....
	Vega Baja	817.80		.....	.....	.....		.....	54.39	.....
	Bayamón	1,819.44		1,572.40	.....	.....		44.95	44.95	.....
16	Vieques	412.17	37,415.58	.....	.....	.....	806.79	.....	.....	.....

Total .....		.....	.....	93.79	145.39	.....	.....	498.00	.....	153.22

^a Collectively.

Average, special schools, 1,697.19; average, all schools, 39,112.77.

TABLE VI.—Average number of pupils taught each day, common schools and special schools, by municipalities and school districts, and for the island, showing the averages for the common schools and for each class of special schools, and total averages for same for the island—Continued.

(Second term, 1903-4.)

COMMON SCHOOLS AND SPECIAL SCHOOLS—Continued.

School district.	Location.	Common schools.		High schools.	Industrial schools.	Night schools.		Agricultural schools.		Kindergarten schools.
		Municipality.	District.			Municipality.	District.	Municipality.	District.	
1	Carolina	915.40	3,656.32	43.34	95.09	110.20	110.20	20.55	20.55	98.52
	Rio Piedras	520.52								
	San Juan	2,220.42								
2	Fajardo	1,028.56	2,680.59			85.17	85.17			
	Naguabo	425.61								
	Rio Grande	1,226.42								
3	Humacao	738.40	2,014.70			49.81	49.81	28.97	63.18	
	San Lorenzo	697.60						34.21		
	Yabueco	578.70								
4	Aguas Buenas	250.88	2,300.93			36.74	36.74			
	Caguas	1,144.05								
	Cayey	906.00								
5	Guayama	1,252.50	1,552.02			46.85	46.85	25.43	25.43	
	Patillas	299.52								
6	Aibonito	485.55	1,668.81					61.40	61.40	
	Barros	719.82								
	Comerio	463.44								
7	Coamo	1,011.31	2,079.53			57.12	57.12			
	Juana Diaz	792.00								
	Santa Isabel	276.22								
8	Ponce	3,078.60	3,078.60	24.78	94.50	139.25	139.25	29.85	29.85	51.20
9	Lajas	389.90	2,162.51					41.44	88.75	
	Sabana Grande	634.65						47.31		
	Yauco	1,137.96								
10	Cabo Rojo	705.33	1,923.50			30.33	30.33	46.96	46.96	
	Maricao	266.42								
	San Germán	951.75								
11	Añasco	688.37	2,603.49	17.43	84.06	45.64	70.10			
	Las Marias	356.18								
	Mayaguez	1,558.94								
12	Aguada	300.00	2,057.45			43.65	43.65	33.90	33.90	
	Aguadilla	1,108.56								
	San Sebastian	648.89								
13	Camuy	955.68	1,559.92		96.83	29.63	29.63			
	Isabela	604.24								
14	Arecibo	1,644.28	2,270.68			26.46	26.46	45.64	45.64	
	Lares	626.40								
15	Adjuntas	583.68	1,673.50			25.36	25.36			
	Utua	1,089.82								
16	Ciales	635.84	2,066.97					53.77	53.77	
	Manati	1,030.63								
	Morovis	400.50								
17	Toa Alta	776.40	1,569.40					44.38	44.38	
	Vega Baja	793.00								
18	Bayamón	1,901.90	1,901.90							
	Vieques	368.40	368.40							
Total			39,189.22	85.55	370.48		750.67		513.81	149.72

Average, special schools, 1,870.23; average, all schools, 41,059.45.

TABLE VI.—Average number of pupils taught each day, common schools and special schools, by municipalities and school districts, and for the island, showing the averages for the common schools and for each class of special schools, and total averages for same for the island—Continued.

(Third term, 1903-4.)

COMMON SCHOOLS AND SPECIAL SCHOOLS—Continued.

School district.	Location.	Common schools.		High schools.	Industrial schools.	Night schools.		Agricultural schools.		Kindergarten schools.
		Municipality.	District.			Municipality.	District.	Municipality.	District.	
1	Carolina	847.55						30.88		
	Rio Piedras	472.22								
	San Juan	1,957.41		40.71	97.75	92.13				100.08
			3,277.18				92.13		30.88	
2	Fajardo	1,018.21				44.92				
	Naguabo	419.13								
	Rio Grande	1,226.42				46.40				
			2,663.76				91.32			
3	Humacao	686.60				16.22		18.30		
	San Lorenzo	623.00				27.17		34.86		
	Yabucoa	561.90								
			1,871.50				43.39		53.16	
4	Aguas Buenas	285.46								
	Caguas	1,160.58								
	Cayey	925.44				31.36				
			2,371.48				31.36			
5	Guayama	1,191.90				44.34		28.62		
	Patillas	302.76								
			1,494.66				44.34		28.62	
6	Aibonito	523.38								
	Barros	783.72						64.06		
	Comerio	473.76								
			1,780.86						64.06	
7	Coamo	1,070.42				25.38				
	Juana Diaz	817.56				33.03				
	Santa Isabel	287.07								
			2,175.05				58.41			
8	Ponce	3,161.36		23.49	100.37	26.64	26.64	27.80	27.80	40.00
9	Lajas	420.50						39.13		
	Sabana Grande	594.16						46.23		
	Yauco	1,128.97								
			2,143.63						85.36	
10	Cabo Rojo	728.11						39.37		
	Maricao	217.70								
	San German	935.00				28.42				
			1,880.81				28.42		39.37	
11	Añasco	677.54				25.98				
	Las Marias	344.00		14.20	103.57	44.11				
	Mayaguez	1,587.00					70.04			
			2,608.54							
12	Aguada	310.10								
	Aguadilla	1,117.86				24.35				
	San Sebastian	649.40				20.55				
			2,077.36				44.90			
13	Camuy	1,358.64						30.59		
	Isabela	589.96								
			1,948.60						30.59	
14	Arecibo	1,523.92			84.95					
	Lares	580.95				36.28				
			2,104.87				36.28			
15	Adjuntas	597.12								
	Utua	1,086.34				19.40		45.17		
			1,683.46				19.40		45.17	
16	Ciales	660.96								
	Manati	995.90				18.40				
	Morovis	383.94								
			2,040.80				18.40			
17	Toa Alta	771.60						52.20		
	Vega Baja	783.80								
			1,555.40							
18	Bayamon	1,948.65	1,948.65					44.98	52.20	
	Vieques	358.40	358.40					44.98	44.98	
	Total		39,146.37	78.40	386.64		605.03		502.19	140.08

Average, special schools, 1,712.34; average, all schools, 40,858.71.

TABLE VI.—Average number of pupils taught each day, common schools and special schools, by municipalities and school districts, and for the island, showing the averages for the common schools and for each class of special schools, and total averages for same for the island—Continued.

(School year 1903-4.)

COMMON SCHOOLS AND SPECIAL SCHOOLS—Continued.

School district.	Location.	Common schools.		High schools.	Industrial schools.	Night schools.		Agricultural schools.		Kindergarten schools.
		Municipality.	District.			Municipality.	District.	Municipality.	District.	
1	{Carolina	907.58	3,767.02	44.81	91.72	129.24	129.24	26.75	26.75	98.92
	{Rio Piedras	580.04						.....	
	{San Juan	2,329.40						.....	
2	{Fajardo	1,018.90	2,714.02	47.67	89.95
	{Naguabo	446.10						.....	
	{Rio Grande	1,249.02						.....	
3	{Humacao	720.40	2,090.02	20.56	50.97	26.52	62.18
	{San Lorenzo	693.42						35.66		
	{Yabucoa	676.20						.....	
4	{Aguas Buenas	320.40	2,373.13	35.97	35.97	25.03
	{Caguas	1,112.73						.....	
	{Cayey	940.00						.....	
5	{Guayama	1,216.50	1,508.10	45.68	45.68	25.03	25.03
	{Patillas	291.60						.....	
6	{Aibonito	493.35	1,778.22	34.76	60.11	59.92	59.92
	{Barros	822.15						.....	
	{Comerio	462.72						.....	
7	{Coamo	1,095.75	2,215.71	24.25	97.50	135.90	135.90	28.43	28.43	49.06
	{Juana Diaz	798.84						.....	
	{Santa Isabela	321.12						.....	
8	{Ponce	3,355.24	3,355.24	24.25	97.50	135.90	135.90	28.43	28.43	49.06
9	{Lajas	414.30	2,203.35	29.63	29.63	39.20	86.80
	{Sabana Grande	637.95						47.60		
	{Yauco	1,151.10						.....	
10	{Cabo Rojo	691.22	1,816.67	24.63	68.41	43.85	43.85
	{Maricao	226.45						.....	
	{San Germán	899.00						.....	
11	{Añasco	681.67	2,578.03	17.25	82.56	43.78	43.78
	{Las Marias	288.64						.....	
	{Mayaguez	1,602.72						.....	
12	{Aguada	285.10	2,040.84	22.35	43.23
	{Aguadilla	1,142.72						.....	
	{San Sebastian	613.02						.....	
13	{Camuy	1,155.70	1,734.46	90.48	30.38	30.38	31.70	31.70
	{Isabela	578.76						.....	
14	{Arecibo	1,671.75	2,232.71	25.45	25.45	42.63	42.63
	{Lares	560.96						.....	
15	{Adjuntas	565.44	1,594.65	22.88	22.88	53.49	53.49
	{Utua	1,029.21						44.78		
16	{Ciales	561.92	1,969.68	.....	.....	.....	.....	.....
	{Manati	989.46						.....	
	{Morovis	418.30						.....	
17	{Toa Alta	767.00	1,559.40
	{Vega Baja	792.40						.....	
18	{Bayamón	1,997.74	404.36	.....	.....	.....	.....	.....
	{Vieques	404.36						.....	
	{Total	39,928.35	86.31	362.26	767.80	505.56	147.98

Average, special schools, 1,869.91; average, all schools, 41,798.26.

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools.*

(First term, 1903-4.)

TEACHERS, BY SEX.

School district.	Municipality.	Males.							Females.							Grand total.
		Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	Total.	Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	Total.	
1	WHITE.															
	Carolina	1	4	15	1	1		22		3		1			4	26
	Rio Piedras	1	3	7				11			1	1			3	14
	San Juan	3	8					11	1	34	3	18		3	59	70
	District	5	15	22	1	1		44	1	38	4	20		3	66	110
2	Fajardo	1	6	6				13		5	2	2			9	22
	Naguabo		1	5	1			7		1	1				2	9
	Rio Grande		4	15	1			20		4	2	1			7	27
	District	1	11	26	2			40		10	5	3			18	58
3	Humacao	1	3	7	1	1		13		4	1	1			6	19
	San Lorenzo		3	9	1			13		2	3	1			6	19
	Yabucoa	1	4	3	1			9		1	5	1			7	16
	District	2	10	19	3	1		35		7	9	3			19	54
4	Aguas Buenas		1	3				4		1	1	1			3	7
	Caguas	1	7	10				18		7	3	3			13	31
	Cayey	1	8	7	1			17		3	6	1			10	27
	District	2	16	20	1			39		11	10	5			26	65
5	Guayama	2	8	7	2	1		20		5	3	2			10	30
	Patillas		1	6	1			8		1	1				2	10
	District	2	9	13	3	1		28		6	4	2			12	40
6	Aibonito		3	5	1			9		2	2				4	13
	Barros		7	7		2		16			1				1	17
	Comerio		3	7				10		1	1	1			3	13
	District		13	19	1	2		35		3	4	1			8	43
7	Coamo		5	13				18		2	2	2			6	24
	Juana Diaz		2	7	1			10		3	4	1			8	18
	Santa Isabel		3	3	1			7								7
	District		10	23	2			35		5	6	3			14	49
8	Ponce	3	10	18	2	1		34	1	17	18	12		2	50	84
9	Lajas			7	1			8		1					1	9
	Sabana Grande	1	4	1	1	1		8		1	7				8	16
	Yauco	1	5	10	1			17		6	4	3			13	30
	District	2	9	18	3	1		33		8	11	3			22	55
10	Cabo Rojo	1	4	11	1			17		1	1				2	19
	Maricao		2	2	1			5							5	5
	San German	1	3	4				8		7	6	2			15	23
	District	2	9	17	2			30		8	7	2			17	47
11	Añasco	1	4	6	1			12		3	4				7	19
	Las Marias		1	4	1			6		1	2				3	9
	Mayaguez	1	10	9	1			21		6	9	10		1	26	47
	District	2	15	19	3			39		10	15	10		1	36	75
12	Aguada		2	5	1			8		1					1	9
	Aguadilla	1	5	12	1			19		6	2	2			10	29
	San Sebastian	1	3	11	1			16		1	1				2	18
	District	2	10	28	3			43		8	3	2			13	56

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY SEX—Continued.

School district.	Municipality.	Males.						Females.						Grand total.		
		Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	Total.	Principal.	Graded.	Rural.	English.	Agricultural.		Music and drawing.	Total.
13	WHITE—continued.															
	Camuy.....		9	12	2	1		24		3	2	2			7	31
	Isabela.....		3	8				11			2	1			3	14
14	District.....		12	20	2	1		35		3	4	3			10	45
	Arecibo.....		2	6	19			27		11	4	3			18	45
	Lares.....		1	4	7			12			3	1			4	16
15	District.....		3	10	26			39		11	7	4			22	61
	Adjuntas.....		3	7	1			11		3	2	1			6	17
	Utua.....		1	7	13	1	1	23		2	1	1			4	27
16	District.....		1	10	20	2	1	34		5	3	2			10	44
	Ciales.....		3	10	1			14		2	1				3	17
	Manati.....		6	8				14		4	2	1			7	21
17	Morovis.....			7	1			8								8
	District.....		9	25	2			36		6	3	1			10	46
	Toa Alta.....		4	7	1	1		13		5	3	2			10	23
18	Vega Baja.....		5	7	1			13		2	1	1			4	17
	District.....		9	14	2	1		26		7	4	3			14	40
	Bayamón.....		2	15	1	1		19		7	11	4			22	41
19	Vieques.....		1	3	2			6		3	1				4	10
	Total.....	29	188	365	37	11		630	2	173	129	83		6	393	1,023
	COLORED.															
1	Carolina.....															
	Rio Piedras.....		1					1								1
	San Juan.....		2	2				4		1					1	5
2	District.....		3	2				5		1					1	6
	Fajardo.....									1						1
	Naguabo.....		1					1								1
3	Rio Grande.....			1				1								1
	District.....		1	1				2		1					1	3
	Humacao.....		1	1				2		1					1	3
4	San Lorenzo.....		2	1				3		1					1	4
	Yabucoa.....			1				1								1
	District.....		3	3				6		2					2	8
5	Aguas Buenas.....			1				1								1
	Caguas.....										1				1	1
	Cayey.....				1			1								1
6	District.....			1	1			2			1				1	3
	Guayama.....		1	2				3		1					1	4
	Patillas.....															
7	District.....		1	2				3		1					1	4
	Aibonito.....		1					1								1
	Barros.....			4				4								4
8	Comerio.....															
	District.....		1	4				5								5

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY SEX—Continued.

School district.	Municipality.	Males.						Females.						Grand total.
		Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	
	COLORED—continued.													
7	Coamo		1	2			3							3
	Juana Diaz			2			2		1				1	3
	Santa Isabel			1			1						1	2
	District		1	5			6		2				2	8
8	Ponce		1	1			2			3			3	5
9	Lajas		1				1			2			2	3
	Sabana Grande		1				1			1			1	2
	Yauco													
	District		2				2			3			3	5
10	Cabo Rojo													
	Maricao			2			2							2
	San Germán									4			4	4
	District			2			2			4			4	6
11	Añasco													
	Las Marias			3			3							3
	Mayaguez			1			1		1	2			3	4
	District			4			4		1	2			3	7
12	Aguada			1			1						1	2
	Aguadilla		1	3			4		1					4
	San Sebastian													
	District		1	4			5		1				1	6
13	Camuy													
	Isabela								1				1	1
	District								1				1	1
14	Arecibo			1			1		1	1			2	3
	Lares									1			1	1
	District			1			1		1	2			3	4
15	Adjuntas	1					1			1			1	2
	Utua									1			1	1
	District	1					1			2			2	3
16	Ciales													
	Manati			2			2			1			1	3
	Morovis		1				1		1				1	2
	District		1	2			3		1	1			2	5
17	Toa Alta			1			1							1
	Vega Baja	1		2			3			2			2	5
	District	1		3			4			2			2	6
18	Bayamón		4	3			7		5	5	1		11	18
	Vieques		1	1			2			1	1		2	4
	Total colored	2	20	39	1		62		17	26	2		45	107
	Total white	29	188	365	37	11	630	2	173	129	83		6	1,023
	Grand total	31	208	404	38	11	692	2	190	155	85		6	1,130

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY SEX—Continued.

School district.	Municipality.	Male.						Female.						
		High.	Industrial.	Night. ^a	Night, exclusive of duplicates. ^b	Kindergarten.	Total.	High.	Industrial.	Night. ^a	Night, exclusive of duplicates. ^b	Kindergarten.	Total.	Grand total.
WHITE.														
1	San Juan.....	4	6	3			10	4	4	2	1	2	11	21
2	{ Fajardo.....			1										
	{ Rio Grande.....			1										
	District.....			2										
3	{ Humacao.....			2										
	{ San Lorenzo.....			2										
	District.....			4										
4	Cayey.....			1										
5	Guayama.....									1				
7	{ Coamo.....			1										
	{ Juana Diaz.....			1										
	District.....			2										
8	Ponce.....	2	2	1			4		1	4		2	3	7
10	San German.....			1										
11	{ Añasco.....			1										
	{ Mayaguez.....	1	3	2			4		2				2	6
	District.....	1	3	3			4		2				2	6
12	San Sebastian.....			1										
14	Lares.....			1										
15	Utua.....			1										
16.	Manati.....			1										
	Total white.....	7	11	21			18	4	7	7	1	4	16	34
COLORED.														
1	San Juan.....									1				
12	Aguadilla.....			1										
	Total colored.....			1						1				
	Grand total.....	7	11	22			18	4	7	8	1	4	16	34

^a Duplicates; not included in total.

^b Not duplicated; included in total.

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY COLOR.

School district.	Municipality.	Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	High.	Industrial.	Night. ^a	Night, exclusive of duplicates. ^b	Kindergarten.	Grand total.
WHITE.													
1	Carolina.....	1	7	15	2	1	.....	.....	.....	.....	.....	.....	26
	Rio Piedras.....	1	4	8	1	.....	.....	.....	.....	.....	.....	.....	14
	San Juan.....	4	42	3	18	.....	3	8	10	5	1	2	91
	District.....	6	53	26	21	1	3	8	10	5	1	2	131
2	Fajardo.....	1	11	8	2	.....	.....	.....	.....	1	.....	.....	22
	Naguabo.....	.....	2	6	1	.....	.....	.....	.....	.....	.....	.....	9
	Rio Grande.....	.....	8	17	2	.....	.....	.....	.....	1	.....	.....	27
	District.....	1	21	31	5	.....	.....	.....	.....	2	.....	.....	58
3	Humacao.....	1	7	8	2	1	.....	.....	.....	2	.....	.....	19
	San Lorenzo.....	.....	5	12	2	.....	.....	.....	.....	2	.....	.....	19
	Yabucoa.....	1	5	8	2	.....	.....	.....	.....	.....	.....	.....	16
	District.....	2	17	28	6	1	.....	.....	.....	4	.....	.....	54
4	Aguas Buenas.....	.....	2	4	1	.....	.....	.....	.....	.....	.....	.....	7
	Caguas.....	1	14	13	3	.....	.....	.....	.....	.....	.....	.....	31
	Cayey.....	1	11	13	2	.....	.....	.....	.....	1	.....	.....	27
	District.....	2	27	30	6	.....	.....	.....	.....	1	.....	.....	65
5	Guayama.....	2	13	10	4	1	.....	.....	.....	1	.....	.....	30
	Patillas.....	.....	2	7	1	.....	.....	.....	.....	.....	.....	.....	10
	District.....	2	15	17	5	1	.....	.....	.....	1	.....	.....	40
6	Aibonito.....	.....	5	7	1	.....	.....	.....	.....	.....	.....	.....	13
	Barros.....	.....	7	8	.....	2	.....	.....	.....	.....	.....	.....	17
	Comerio.....	.....	4	8	1	.....	.....	.....	.....	.....	.....	.....	13
	District.....	.....	16	25	2	2	.....	.....	.....	.....	.....	.....	43
7	Coamo.....	.....	7	15	2	.....	.....	.....	.....	1	.....	.....	24
	Juana Diaz.....	.....	5	11	2	.....	.....	.....	.....	1	.....	.....	18
	Santa Isabel.....	.....	3	3	1	.....	.....	.....	.....	.....	.....	.....	7
	District.....	.....	15	29	5	.....	.....	.....	.....	2	.....	.....	49
8	Ponce.....	4	27	36	14	1	2	2	3	5	.....	2	91
9	Lajas.....	.....	1	7	1	.....	.....	.....	.....	.....	.....	.....	9
	Sabana Grande.....	1	5	8	1	1	.....	.....	.....	.....	.....	.....	16
	Yauco.....	1	11	14	4	.....	.....	.....	.....	.....	.....	.....	30
	District.....	2	17	29	6	1	.....	.....	.....	.....	.....	.....	55
10	Cabo Rojo.....	1	5	12	1	.....	.....	.....	.....	.....	.....	.....	19
	Maricao.....	.....	2	2	1	.....	.....	.....	.....	.....	.....	.....	5
	San Germán.....	1	10	10	2	.....	.....	.....	.....	1	.....	.....	23
	District.....	2	17	24	4	.....	.....	.....	.....	1	.....	.....	47
11	Añasco.....	1	7	10	1	.....	.....	.....	.....	1	.....	.....	19
	Las Marias.....	.....	2	6	1	.....	.....	.....	.....	.....	.....	.....	9
	Mayaguez.....	1	16	18	11	.....	1	1	5	2	.....	.....	53
	District.....	2	25	34	13	.....	1	1	5	3	.....	.....	81
12	Aguada.....	.....	3	5	1	.....	.....	.....	.....	.....	.....	.....	9
	Aguadilla.....	1	11	14	3	.....	.....	.....	.....	.....	.....	.....	29
	San Sebastian.....	1	4	12	1	.....	.....	.....	.....	1	.....	.....	18
	District.....	2	18	31	5	.....	.....	.....	.....	1	.....	.....	56
13	Camuy.....	.....	12	14	4	1	.....	.....	.....	.....	.....	.....	31
	Isabela.....	.....	3	10	1	.....	.....	.....	.....	.....	.....	.....	14
	District.....	.....	15	24	5	1	.....	.....	.....	.....	.....	.....	45

^a Duplicates, not included in total.^b Not duplicated, included in total.

TABLE VII.—*Distribution (teachers) by sex and colors, common schools and special schools—Continued.*

TEACHERS, BY COLOR—Continued.

[illegible]

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY COLOR—Continued

School district.	Municipality.	Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	High.	Industrial.	Night.	Night, exclusive of duplicates.	Kindergarten.	Grand total.
	COLORED—continued.												
9	Lajas		1	2									3
	Sabana Grande		1	1									2
	Yauco												
	District		2	3									5
10	Cabo Rojo												
	Maricao			2									2
	San German			4									4
	District			6									6
11	Añasco												
	Las Marias			3									3
	Mayaguez		1	3									4
	District		1	6									7
12	Aguada		1	1									2
	Aguadilla		1	3						1			4
	San Sebastian												
	District		2	4						1			6
13	Camuy												
	Isabela		1										1
	District		1										1
14	Arecibo		1	2									3
	Lares			1									1
	District		1	3									4
15	Adjuntas	1		1									2
	Utua			1									1
	District	1		2									3
16	Ciales												
	Manati			3									3
	Morovis		2										2
	District		2	3									5
17	Toa Alta			1									1
	Vega Baja	1		4									5
	District	1		5									6
18	Bayamón		9	8	1								18
	Vieques		1	2	1								4
	Total colored	2	37	65	3					2			107

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TOTAL TEACHERS, ALL CLASSES.

School district.	Municipality.	Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	High.	Industrial.	Night. ^a	Night, exclusive of duplicates. ^b	Kindergarten.	Total teachers employed.
1	Carolina.....	1	7	15	2	1							26
	Rio Piedras.....	1	5	8	1								15
	San Juan.....	4	45	5	18		3	8	10	6	1	2	96
	District.....	6	57	28	21	1	3	8	10	6	1	2	137
2	Fajardo.....	1	12	8	2					1			23
	Naguabo.....		3	6	1								10
	Rio Grande.....		8	18	2					1			28
	District.....	1	23	32	5					2			61
3	Humacao.....	1	9	9	2	1				2			22
	San Lorenzo.....		8	13	2					2			23
	Yabueca.....	1	5	9	2								17
	District.....	2	22	31	6	1				4			62
4	Aguas Buenas.....		2	5	1								8
	Caguas.....	1	14	14	3								32
	Cavey.....	1	11	13	3					1			28
	District.....	2	27	32	7					1			68
5	Guayama.....	2	15	12	4	1				1			34
	Patillas.....		2	7	1								10
	District.....	2	17	19	5	1				1			44
6	Aibonito.....		6	7	1								14
	Barros.....		7	12		2							21
	Comerio.....		4	8	1								13
	District.....		17	27	2	2							48
7	Coamo.....		8	17	2					1			27
	Juana Diaz.....		6	13	2					1			21
	Santa Isabel.....		4	4	1								9
	District.....		18	34	5					2			57
8	Ponce.....	4	28	40	14	1	2	2	3	5		2	96
9	Lajas.....		2	9	1								12
	Sabana Grande.....	1	6	9	1	1							18
	Yauco.....	1	11	14	4								30
	District.....	2	19	32	6	1							60
10	Cabo Rojo.....	1	5	12	1								19
	Maricao.....		2	4	1								7
	San Germán.....	1	10	14	2					1			27
	District.....	2	17	30	4					1			53
11	Añasco.....	1	7	10	1					1			19
	Las Marias.....		2	9	1								12
	Mayaguez.....	1	17	21	11		1	1	5	2			57
	District.....	2	26	40	13		1	1	5	3			88
12	Aguada.....		4	6	1								11
	Aguadilla.....	1	12	17	3					1			33
	San Sebastian.....	1	4	12	1					1			18
	District.....	2	20	35	5					2			62
13	Camuy.....		12	14	4	1							31
	Isabela.....		4	10	1								15
	District.....		16	24	5	1							46

^aDuplicates, not included in total.^bNot duplicated, included in total.

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TOTAL TEACHERS, ALL CLASSES—Continued.

School district.	Municipality.	Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	High.	Industrial.	Night.	Night, exclusive of duplicates.	Kindergarten.	Total teachers employed.
14	Arecibo.....	2	18	25	3								48
	Lares.....	1	4	11	1					1			17
	District.....	3	22	36	4					1			65
15	Adjuntas.....	1	6	10	2								19
	Utua.....	1	9	15	2	1				1			28
	District.....	2	15	25	4	1				1			47
16	Ciales.....		5	11	1								17
	Manatí.....		10	13	1					1			24
	Morovis.....		2	7	1								10
	District.....		17	31	3					1			51
17	Toa Alta.....		9	11	3	1							24
	Vega Baja.....	1	7	12	2								22
	District.....	1	16	23	5	1							46
18	Bayamón.....	2	16	34	6	1							59
	Vieques.....		5	6	3								14
	Total.....	33	398	559	123	11	6	11	18	20	1	4	1,164

TOTAL TEACHERS, BY SEX.

School district.	Municipality.	White.			Colored.			Total male.	Total female.	Total teachers employed
		Male.	Female.	Total.	Male.	Female.	Total.			
1	Carolina.....	22	4	26				22	4	26
	Rio Piedras.....	11	3	14	1		1	12	3	15
	San Juan.....	21	70	91	4	1	5	25	71	96
	District.....	54	77	131	5	1	6	59	78	137
2	Fajardo.....	13	9	22		1	1	13	10	23
	Naguabo.....	7	2	9	1		1	8	2	10
	Rio Grande.....	20	7	27	1		1	21	7	28
	District.....	40	18	58	2	1	3	42	19	61
3	Humacao.....	13	6	19	2	1	3	15	7	22
	San Lorenzo.....	13	6	19	3	1	4	16	7	23
	Yabucoa.....	9	7	16	1		1	10	7	17
	District.....	35	19	54	6	2	8	41	21	62
4	Agua Buenas.....	4	3	7	1		1	5	3	8
	Caguas.....	18	13	31		1	1	18	14	32
	Cayey.....	17	10	27	1		1	18	10	28
	District.....	39	26	65	2	1	3	41	27	68
5	Guayama.....	20	10	30	3	1	4	23	11	34
	Patillas.....	8	2	10				8	2	10
	District.....	28	12	40	3	1	4	31	13	44
6	Aibonito.....	9	4	13	1		1	10	4	14
	Barros.....	16	1	17	4		4	20	1	21
	Comerio.....	10	3	13				10	3	13
	District.....	35	8	43	5		5	40	8	48

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TOTAL TEACHERS, BY SEX—Continued.

School district.	Municipality.	White.			Colored.			Total male.	Total female.	Total teachers employed.
		Male.	Female.	Total.	Male.	Female.	Total.			
7	Coamo	18	6	24	3	.....	3	21	6	27
	Juana Diaz	10	8	18	2	1	3	12	9	21
	Santa Isabel	7	.....	7	1	1	2	8	1	9
	District	35	14	49	6	2	8	41	16	57
8	Ponce	38	53	91	2	3	5	40	56	96
9	Lajas	8	1	9	1	2	3	9	3	12
	Sabana Grande	8	8	16	1	1	2	9	9	18
	Yauco	17	13	30	.....	.....	.....	17	13	30
	District	33	22	55	2	3	5	35	25	60
10	Cabo Rojo	17	2	19	.....	.....	.....	17	2	19
	Maricao	5	.....	5	2	.....	2	7	.....	7
	San Germán	8	15	23	.....	4	4	8	19	27
	District	30	17	47	2	4	6	32	21	53
11	Añasco	12	7	19	.....	.....	.....	12	7	19
	Las Marias	6	3	9	3	.....	3	9	3	12
	Mayaguez	25	28	53	1	3	4	26	31	57
	District	43	38	81	4	3	7	47	41	88
12	Aguada	8	1	9	1	1	2	9	2	11
	Aguadilla	19	10	29	4	.....	4	23	10	33
	San Sebastián	16	2	18	.....	.....	.....	16	2	18
	District	43	13	56	5	1	6	48	14	62
13	Camuy	24	7	31	.....	.....	.....	24	7	31
	Isabela	11	3	14	.....	1	1	11	4	15
	District	35	10	45	.....	1	1	35	11	46
14	Arecibo	27	18	45	1	2	3	28	20	48
	Lares	12	4	16	.....	1	1	12	5	17
	District	39	22	61	1	3	4	40	25	65
15	Adjuntas	11	6	17	1	1	2	12	7	19
	Utuado	23	4	27	.....	1	1	23	5	28
	District	34	10	44	1	2	3	35	12	47
16	Ciales	14	3	17	.....	.....	.....	14	3	17
	Manatí	14	7	21	2	1	3	16	8	24
	Morovis	8	.....	8	1	1	2	9	1	10
	District	36	10	46	3	2	5	39	12	51
17	Toa Alta	13	10	23	1	.....	1	14	10	24
	Vega Baja	13	4	17	3	2	5	16	6	22
	District	26	14	40	4	2	6	30	16	46
18	Bayamón	19	22	41	7	11	18	26	33	59
	Vieques	6	4	10	2	2	4	8	6	14
	Total	648	409	1,057	62	45	107	710	454	1,164

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools.*

(Second term, 1903-4.)

TEACHERS, BY SEX.

School district.	Municipality.	Male.						Female.						Grand total.
		Principal.	Graded.	Rural.	English.	Agricultural. Music and drawing.	Total.	Principal.	Graded.	Rural.	English.	Agricultural. Music and drawing.	Total.	
1	WHITE.													
	Carolina	1	4	14	1	1	21	3	1	1		4	25	
	Rio Piedras	1	4	8			13	1	1	1		3	16	
	San Juan	3	8				11	1	30	4	18	3	67	
	District	5	16	22	1	1	45	1	34	5	20	3	108	
2	Fajardo	1	6	6			13	5	2	2		9	22	
	Naguabo		1	6	1		8	1	1			2	10	
	Rio Grande		4	15	1		20	4	2	1		7	27	
	District	1	11	27	2		41	10	5	3		18	59	
3	Humacao	1	3	7	1	1	13	4	1	1		6	19	
	San Lorenzo		3	9	1		13	2	2	1		5	18	
	Yabucoa	1	4	3	1		9	1	5	1		7	16	
	District	2	10	19	3	1	35	7	8	3		18	53	
4	Aguas Buenas		1	3			4	1	1	1		3	7	
	Caguas	1	7	9			17	7	3	3		13	30	
	Cayey	1	9	7	1		18	2	6	1		9	27	
	District	2	17	19	1		39	10	10	5		25	64	
5	Guayama	2	8	8	2	1	21	5	3	2		10	31	
	Patillas		1	6	1		8	1	1			2	10	
	District	2	9	14	3	1	29	6	4	2		12	41	
6	Aibonito		3	6	1		10	2	2			4	14	
	Barros		4	9		2	15		1			1	16	
	Comerio		3	8	1		12	1	1			2	14	
	District		10	23	2	2	37	3	4			7	44	
7	Coamo		5	13			18	2	2	2		6	24	
	Juan Diaz		2	6	1		9	3	4	1		8	17	
	Santa Isabel		3	2			5	1				1	6	
	District		10	21	1		32	6	6	3		15	47	
8	Ponce	3	9	19	2	1	34	1	17	18	12	2	84	
9	Lajas			8			8	1	1			2	10	
	Sabana Grande	1	5	1	1	1	9	1	7			8	17	
	Yauco	1	5	11	1		18	6	4	3		13	31	
	District	2	10	20	2	1	35	8	12	3		23	58	
10	Cabo Rojo	1	4	13	1		19	1				1	20	
	Maricao		3	2	1		6						6	
	San Germán	1	3	1			5	6	6	2		14	19	
	District	2	10	16	2		30	7	6	2		15	45	
11	Añasco	1	5	6			12	2	4	1		8	20	
	Las Marias		1	5	1		7	1	2			3	10	
	Mayaguez	1	10	9	1		21	6	9	11		1	48	
	District	2	16	20	2		40	10	15	12		1	78	
12	Aguada		2	6	1		9	1				1	10	
	Aguadilla	1	5	12	1		19	6	2	2		10	29	
	San Sebastian	1	3	11	1		16	1	1			2	18	
	District	2	10	29	3		44	8	3	2		13	57	

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY SEX—Continued.

School district.	Municipality.	Male.						Female.						Grand total.		
		Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	Total.	Principal.	Graded.	Rural.	English.	Agricultural.		Music and drawing.	Total.
	WHITE—continued.															
13	Camuy.....		10	12	1	1		24		2	2	2			6	30
	Isabela.....		3	8				11			2	1			3	14
	District.....		13	20	1	1		35		2	4	3			9	44
14	Arecibo.....	1	6	18				25	11		6	3			20	45
	Lares.....	1	4	6				11		3	1			4	15	
	District.....	2	10	24				36	11		9	4			24	60
15	Adjuntas.....		3	6	1			10	3	2	1			6	16	
	Utua.....	1	7	17	1	1		27	2	1	1			4	31	
	District.....	1	10	23	2	1		37	5	3	2			10	47	
16	Ciales.....		3	10	1			14	2	1				3	17	
	Manati.....		6	7	1			14	4	2	1			7	21	
	Morovis.....			7				7							7	
	District.....		9	24	2			35	6	3	1			10	45	
17	Toa Alta.....		4	7	2	1		14	5	3	1			9	23	
	Vega Baja.....		5	7	2			14	2	1				3	17	
	District.....		9	14	4	1		28	7	4	1			12	40	
18	Bayamón.....	1		15	1	1		18	7	10	3			20	38	
	Vieques.....		2	2	1			5	2					2	7	
	Total.....	27	191	371	35	11		635	2	166	129	81		6	384	1,019
	COLORED.															
1	Carolina.....			1				1								1
	Rio Piedras.....			1				2	1					1	3	
	San Juan.....		1	1												
	District.....		1	2				3	1					1	4	
2	Fajardo.....								1						1	
	Naguabo.....		1					1						1	1	
	Rio Grande.....			1				1							1	
	District.....		1	1				2	1					1	3	
3	Humacao.....		1	1				2	1					1	3	
	San Lorenzo.....		2	1				3	1					1	4	
	Yabucoa.....			1				1							1	
	District.....		3	3				6	2					2	8	
4	Agua Buenas.....			1				1			2				2	
	Caguas.....															
	Cayey.....				1			1								1
	District.....			1	1			2			2			2	4	
5	Guayama.....		1	2				3	1					1	4	
	Patillas.....															
	District.....		1	2				3	1					1	4	
6	Aibonito.....		1					1							1	
	Barros.....			4				4							4	
	Comerio.....															
	District.....		1	4				5							5	

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY SEX—Continued.

School district.	Municipality.	Male.						Female.						Grand total.		
		Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	Total.	Principal.	Graded.	Rural.	English.	Agricultural.		Music and drawing.	Total.
	COLORED—continued.															
7	Coamo		1	1				2								2
	Juana Diaz			2				2		1					1	3
	Santa Isabel			2				2		1					1	3
	District		1	5				6		2					2	8
8	Ponce		1	2				3			3				3	6
9	Lajas		1					1			2				2	3
	Sabana Grande			1				1								1
	Yauco															
	District		1	1				2			2				2	4
10	Cabo Rojo															
	Maricao			2				2								2
	San Germán			3				3		1	4				5	8
	District			5				5		1	4				5	10
11	Añasco															
	Las Marias			3				3								3
	Mayaguez			1				1		1	2				3	4
	District			4				4		1	2				3	7
12	Aguada			1				1		1					1	2
	Aguadilla		1	3				4								4
	San Sebastian															
	District		1	4				5		1					1	6
13	Camuy															
	Isabela			1				1		1					1	2
	District			1				1		1					1	2
14	Arecibo			1				1		1	1				2	3
	Lares										2				2	2
	District			1				1		1	3				4	5
15	Adjuntas	1						1			1				1	2
	Utúado										1				1	1
	District	1						1			2				2	3
16	Ciales															
	Manatí			2				2			1				1	3
	Morovis		1					1		1					1	2
	District		1	2				3		1	1				2	5
17	Toa Alta			1				1								1
	Vega Baja	1		2				3			2				2	5
	District	1		3				4			2				2	6
18	Bayamón	1	4	3				8		5	5	1			11	19
	Vieques		1	1				2			2				2	4
	Total colored	3	17	45	1			66		18	28	1			47	113
	Total white	27	191	371	35	11		635	2	166	129	81		6	384	1,019
	Grand total	30	208	416	36	11		701	2	184	157	82		6	431	1,132

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY SEX—Continued.

School district.	Municipality.	Male.						Female.						Grand total.
		High.	Industrial.	Night. ^a	Night, exclu- sive of du- plicates. ^b	Kindergarten.	Total.	High.	Industrial.	Night. ^a	Night, exclu- sive of du- plicates. ^b	Kindergarten.	Total.	
WHITE.														
1	San Juan	4	6	3			10	4	4	1	1	2	11	21
2	Fajardo			1										
	Rio Grande			1										
	District			2										
3	Humacao			1										
	San Lorenzo			1										
	District			2										
4	Cayey			1										
5	Guayama									1				
7	Coamo			1										
	Juana Diaz			1										
	District			2										
8	Ponce	3	4	1			7	4	4			2	6	13
10	San Germán			1										
11	Añasco			1										
	Mayaguez	2	4	2			6	2					2	8
	District	2	4	3			6	2					2	8
12	San Sebastian			1										
14	Arecibo		3				3	3					3	6
	Lares			1										
	District		3	1			3	3					3	6
15	Utua			1										
16	Manatí			1										
	Total white	9	17	19			26	4	13	6	1	4	22	48
COLORED.														
11	Mayaguez		1				1							1
12	Aguadilla			1										
	Total colored		1	1			1							1
	Grand total	9	18	20			27	4	13	6	1	4	22	49

^a Duplicates, not included in total.^b Not duplicated, included in total.

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY COLOR.

School district.	Municipality.	Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	High.	Industrial.	Night. ^a	Night, exclusive of duplicates. ^b	Kindergarten.	Grand total.
WHITE.													
1	Carolina.....	1	7	14	2	1							25
	Rio Piedras.....	1	5	9	1								16
	San Juan.....	4	38	4	18		3	8	10	4	1	2	88
	District.....	6	50	27	21	1	3	8	10	4	1	2	129
2	Fajardo.....	1	11	8	2					1			22
	Naguabo.....		2	7	1								10
	Rio Grande.....		8	17	2					1			27
	District.....	1	21	32	5					2			59
3	Humacao.....	1	7	8	2	1				1			19
	San Lorenzo.....		5	11	2					1			18
	Yabucoa.....	1	5	8	2								16
	District.....	2	17	27	6	1				2			53
4	Aguas Buenas.....		2	4	1								7
	Caguas.....	1	14	12	3								30
	Cayey.....	1	11	13	2					1			27
	District.....	2	27	29	6					1			64
5	Guayama.....	2	13	11	4	1				1			31
	Patillas.....		2	7	1								10
	District.....	2	15	18	5	1				1			41
6	Aibonito.....		5	8	1								14
	Barros.....		4	10		2							16
	Comerio.....		4	9	1								14
	District.....		13	27	2	2							44
7	Coamo.....		7	15	2					1			24
	Juana Diaz.....		5	10	2					1			17
	Santa Isabel.....		4	2									6
	District.....		16	27	4					2			47
8	Ponce.....	4	26	37	14	1	2	3	8	5		2	97
9	Lajas.....		1	9									10
	Sabana Grande.....	1	6	8	1	1							17
	Yauco.....	1	11	15	4								31
	District.....	2	18	32	5	1							58
10	Cabo Rojo.....	1	5	13	1								20
	Maricao.....		3	2	1								6
	San Germán.....	1	9	7	2					1			19
	District.....	2	17	22	4					1			45
11	Añasco.....	1	8	10	1					1			20
	Las Marias.....		2	7	1								10
	Mayaguez.....	1	16	18	12		1	2	6	2			56
	District.....	2	26	35	14		1	2	6	3			86
12	Aguada.....		3	6	1								10
	Aguadilla.....	1	11	14	3								29
	San Sebastián.....	1	4	12	1					1			18
	District.....	2	18	32	5					1			57

^a Duplicates, not included in total.^b Not duplicated, included in total.

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY COLOR—Continued.

School district.	Municipality.	Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	High.	Industrial.	Night.	Night, exclusive of duplicates.	Kindergarten.	Grand total.
	COLORED—continued.												
7	Coamo.....		1	1									2
	Juana Diaz.....		1	2									3
	Santa Isabel.....		1	2									3
	District.....		3	5									8
8	Ponce.....		1	5									6
9	Lajas.....		1	2									3
	Sabana Grande.....			1									1
	Yauco.....												
	District.....		1	3									4
10	Cabo Rojo.....												
	Maricao.....			2									2
	San Germán.....		1	7									8
	District.....		1	9									10
11	Añasco.....												
	Las Marias.....			3									3
	Mayaguez.....		1	3					1				5
	District.....		1	6					1				8
12	Aguada.....		1	1									2
	Aguadilla.....		1	3						1			4
	San Sebastián.....												
	District.....		2	4						1			6
13	Camuy.....												
	Isabela.....		1	1									2
14	District.....		1	1									2
	Arecibo.....		1	2									3
	Lares.....			2									2
15	District.....		1	4									5
	Adjuntas.....	1		1									2
	Utuado.....			1									1
16	District.....	1		2									3
	Ciales.....												
	Manatí.....			3									3
	Morovis.....		2										2
17	District.....		2	3									5
	Toa Alta.....			1									1
	Vega Baja.....	1		4									5
18	District.....	1		5									6
	Bayamón.....	1	9	8	1								19
	Vieques.....		1	3									4
	Total colored.....	3	35	73	2				1	1			114

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TOTAL TEACHERS, ALL CLASSES.

School district.	Municipality.	Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	High.	Industrial.	Night. ^a	Night, exclusive of duplicates, ^b	Kindergarten.	Total number of teachers employed.
1	Carolina.....	1	7	15	2	1	.....	.....	.....	.....	.....	.....	26
	Rio Piedras.....	1	5	9	1	.....	.....	.....	.....	.....	.....	.....	16
	San Juan.....	4	40	5	18	.....	3	8	10	4	1	2	91
	District.....	6	52	29	21	1	3	8	10	4	1	2	133
2	Fajardo.....	1	12	8	2	.....	.....	.....	.....	1	.....	.....	23
	Naguabo.....	.....	3	7	1	.....	.....	.....	.....	.....	.....	.....	11
	Rio Grande.....	.....	8	18	2	.....	.....	.....	.....	1	.....	.....	28
	District.....	1	23	33	5	.....	.....	.....	.....	2	.....	.....	62
3	Humacao.....	1	9	9	2	1	.....	.....	.....	1	.....	.....	22
	San Lorenzo.....	.....	8	12	2	.....	.....	.....	.....	1	.....	.....	22
	Yabucoa.....	1	5	9	2	.....	.....	.....	.....	.....	.....	.....	17
	District.....	2	22	30	6	1	.....	.....	.....	2	.....	.....	61
4	Agua Buenas.....	.....	2	5	1	.....	.....	.....	.....	.....	.....	.....	8
	Caguas.....	1	14	14	3	.....	.....	.....	.....	.....	.....	.....	32
	Cayey.....	1	11	13	3	.....	.....	.....	.....	1	.....	.....	28
	District.....	2	27	32	7	.....	.....	.....	.....	1	.....	.....	68
5	Guayama.....	2	15	13	4	1	.....	.....	.....	1	.....	.....	35
	Patillas.....	.....	2	7	1	.....	.....	.....	.....	.....	.....	.....	10
	District.....	2	17	20	5	1	.....	.....	.....	1	.....	.....	45
6	Aibonito.....	.....	6	8	1	.....	.....	.....	.....	.....	.....	.....	15
	Barros.....	.....	4	14	.....	2	.....	.....	.....	.....	.....	.....	20
	Comerio.....	.....	4	9	1	.....	.....	.....	.....	.....	.....	.....	14
	District.....	.....	14	31	2	2	.....	.....	.....	.....	.....	.....	49
7	Coamo.....	.....	8	16	2	.....	.....	.....	.....	1	.....	.....	26
	Juana Diaz.....	.....	6	12	2	.....	.....	.....	.....	1	.....	.....	20
	Santa Isabel.....	.....	5	4	.....	.....	.....	.....	.....	.....	.....	.....	9
	District.....	.....	19	32	4	.....	.....	.....	.....	2	.....	.....	55
8	Ponce.....	4	27	42	14	1	2	3	8	5	.....	2	103
9	Lajas.....	.....	2	11	.....	.....	.....	.....	.....	.....	.....	.....	13
	Sabana Grande.....	1	6	9	1	1	.....	.....	.....	.....	.....	.....	18
	Yauco.....	1	11	15	4	.....	.....	.....	.....	.....	.....	.....	31
	District.....	2	19	35	5	1	.....	.....	.....	.....	.....	.....	62
10	Cabo Rojo.....	1	5	13	1	.....	.....	.....	.....	.....	.....	.....	20
	Maricao.....	.....	3	4	1	.....	.....	.....	.....	.....	.....	.....	8
	San Germán.....	1	10	14	2	.....	.....	.....	.....	1	.....	.....	27
	District.....	2	18	31	4	.....	.....	.....	.....	1	.....	.....	55
11	Añasco.....	1	8	10	1	.....	.....	.....	.....	1	.....	.....	20
	Las Marias.....	.....	2	10	1	.....	.....	.....	.....	.....	.....	.....	13
	Mayaguez.....	1	17	21	12	.....	1	2	7	2	.....	.....	61
	District.....	2	27	41	14	.....	1	2	7	3	.....	.....	94
12	Aguada.....	.....	4	7	1	.....	.....	.....	.....	.....	.....	.....	12
	Aguadilla.....	1	12	17	3	.....	.....	.....	.....	1	.....	.....	33
	San Sebastian.....	1	4	12	1	.....	.....	.....	.....	1	.....	.....	18
	District.....	2	20	36	5	.....	.....	.....	.....	2	.....	.....	63
13	Camuy.....	.....	12	14	3	1	.....	.....	.....	.....	.....	.....	30
	Isabela.....	.....	4	11	1	.....	.....	.....	.....	.....	.....	.....	16
	District.....	.....	16	25	4	1	.....	.....	.....	.....	.....	.....	46

^a Duplicates, not included in total.^b Not duplicated, included in total.

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TOTAL TEACHERS, ALL CLASSES—Continued.

School district.	Municipality.	Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	High.	Industrial.	Night.	Night, exclusive of duplicates.	Kindergarten.	Total number of teachers employed.
14	Arecibo.....	1	18	26	3				6				54
	Lares.....	1	4	11	1					1			17
	District.....	2	22	37	4				6	1			71
15	Adjuntas.....	1	6	9	2								18
	Ututao.....	1	9	19	2	1				1			32
	District.....	2	15	28	4	1				1			50
16	Ciales.....		5	11	1								17
	Manati.....		10	12	2					1			24
	Morovis.....		2	7									9
	District.....		17	30	3					1			50
17	Toa Alta.....		9	11	3	1							24
	Vega Baja.....	1	7	12	2								22
	District.....	1	16	23	5	1							46
18	Bayamón.....	2	16	33	5	1							57
	Vieques.....		5	5	1								11
	Total.....	32	392	573	118	11	6	13	31	26	1	4	1,181

TOTAL TEACHERS, BY SEX.

School district.	Municipality.	White.			Colored.			Total male.	Total female.	Total number teachers employed.
		Male.	Female.	Total.	Male.	Female.	Total.			
1	Carolina.....	21	4	25	1		1	22	4	26
	Rio Pedras.....	13	3	16				13	3	16
	San Juan.....	21	67	88	2	1	3	23	68	91
	District.....	55	74	129	3	1	4	58	75	133
2	Fajardo.....	13	9	22		1	1	13	10	23
	Naguabo.....	8	2	10	1		1	9	2	11
	Rio Grande.....	20	7	27	1		1	21	7	28
	District.....	41	18	59	2	1	3	43	19	62
3	Humacao.....	13	6	19	2	1	3	15	7	22
	San Lorenzo.....	13	5	18	3	1	4	16	6	22
	Yabucoa.....	9	7	16	1		1	10	7	17
	District.....	35	18	53	6	2	8	41	20	61
4	Agua Buenas.....	4	3	7	1		1	5	3	8
	Caguas.....	17	13	30		2	2	17	15	32
	Cayey.....	18	9	27	1		1	19	9	28
	District.....	39	25	64	2	2	4	41	27	68
5	Guayama.....	21	10	31	3	1	4	24	11	35
	Patillas.....	8	2	10				8	2	10
	District.....	29	12	41	3	1	4	32	13	45
6	Aibonito.....	10	4	14	1		1	11	4	15
	Barros.....	15	1	16	4		4	19	1	20
	Comerio.....	12	2	14				12	2	14
	District.....	37	7	44	5		5	42	7	49

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TOTAL TEACHERS, BY SEX—Continued.

School district.	Municipality.	White.			Colored.			Total male.	Total female.	Total number teachers employed.
		Male.	Female.	Total.	Male.	Female.	Total.			
7	Coamo	18	6	24	2	.....	2	20	6	26
	Juana Diaz	9	8	17	2	1	3	11	9	20
	Santa Isabel	5	1	6	2	1	3	7	2	9
	District	32	15	47	6	2	8	38	17	55
8	Ponce	41	56	97	3	3	6	44	59	103
9	Lajas	8	2	10	1	2	3	9	4	13
	Sabana Grande	9	8	17	1	.....	1	10	8	18
	Yauco	18	13	31	.....	.....	.....	18	13	31
	District	35	23	58	2	2	4	37	25	62
10	Cabo Rojo	19	1	20	.....	.....	.....	19	1	20
	Maricao	6	3	9	2	.....	2	8	.....	8
	San German	5	14	19	3	5	8	8	19	27
	District	30	15	45	5	5	10	35	20	55
11	Añasco	12	8	20	.....	.....	.....	12	8	20
	Las Marias	7	3	10	3	.....	3	10	3	13
	Mayaguez	27	29	56	2	3	5	29	32	61
	District	46	40	86	5	3	8	51	43	94
12	Aguada	9	1	10	1	1	2	10	2	12
	Aguadilla	19	10	29	4	.....	4	23	10	33
	San Sebastian	16	2	18	.....	.....	.....	16	2	18
	District	44	13	57	5	1	6	49	14	63
13	Camuy	24	6	30	.....	.....	.....	24	6	30
	Isabela	11	3	14	1	1	2	12	4	16
	District	35	9	44	1	1	2	36	10	46
14	Arecibo	28	23	51	1	2	3	29	25	54
	Lares	11	4	15	.....	2	2	11	6	17
	District	39	27	66	1	4	5	40	31	71
15	Adjuntas	10	6	16	1	1	2	11	7	18
	Utua	27	4	31	.....	1	1	27	5	32
	District	37	10	47	1	2	3	38	12	50
16	Ciales	14	3	17	.....	.....	.....	14	3	17
	Manati	14	7	21	2	1	3	16	8	24
	Morovis	7	.....	7	1	1	2	8	1	9
	District	35	10	45	3	2	5	38	12	50
17	Toa Alta	14	9	23	1	.....	1	15	9	24
	Veja Baja	14	3	17	3	2	5	17	5	22
	District	28	12	40	4	2	6	32	14	46
18	Bayamon	18	20	38	8	11	19	26	31	57
	Vieques	5	2	7	2	2	4	7	4	11
	Total	661	406	1,067	67	47	114	728	453	1,181

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools.*

(Third term, 1903-4.)

TEACHERS, BY SEX.

School district.	Municipality.	Male.						Female.						Grand total.		
		Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	Total.	Principal.	Graded.	Rural.	English.	Agricultural.		Music and drawing.	Total.
1	WHITE.															
	Carolina	1	4	13	1	1	.....	20	.....	3	1	1	.....	.....	5	25
	Rio Piedras	1	3	7	.....	.....	.....	11	.....	1	1	1	.....	.....	3	14
	San Juan	3	7	.....	.....	.....	.....	10	1	33	3	18	.....	3	58	68
	District	5	14	20	1	1	.....	41	1	37	5	20	.....	3	66	107
2	Fajardo	1	6	7	.....	.....	.....	14	.....	5	2	3	.....	.....	10	24
	Naguabo .....	.....	1	6	1	.....	.....	8	.....	1	1	.....	.....	.....	2	10
	Rio Grande .....	.....	4	14	1	.....	.....	19	.....	4	2	1	.....	.....	7	26
	District	1	11	27	2	.....	.....	41	.....	10	5	4	.....	.....	19	60
3	Humacao	1	3	7	1	1	.....	13	.....	4	1	1	.....	.....	6	19
	San Lorenzo .....	.....	3	9	1	.....	.....	13	.....	2	2	1	.....	.....	5	18
	Yabucoa	1	4	3	1	.....	.....	9	.....	1	5	1	.....	.....	7	16
	District	2	10	19	3	1	.....	35	.....	7	8	3	.....	.....	18	53
4	Agua Buenas .....	.....	1	3	.....	.....	.....	4	.....	1	1	1	.....	.....	3	7
	Caguas	1	7	9	1	.....	.....	18	.....	7	4	2	.....	.....	13	31
	Cayey	1	9	7	1	.....	.....	18	.....	2	5	1	.....	.....	8	26
	District	2	17	19	2	.....	.....	40	.....	10	10	4	.....	.....	24	64
5	Guayama	2	10	9	2	1	.....	24	.....	5	3	2	.....	.....	10	34
	Patillas .....	.....	1	6	1	.....	.....	8	.....	1	1	.....	.....	.....	2	10
	District	2	11	15	3	1	.....	32	.....	6	4	2	.....	.....	12	44
6	Aibonito .....	.....	3	6	1	.....	.....	10	.....	2	2	.....	.....	.....	4	14
	Barros .....	.....	4	9	.....	2	.....	15	.....	.....	1	.....	.....	.....	1	16
	Comerio .....	.....	3	7	1	.....	.....	11	.....	1	1	.....	.....	.....	2	13
	District .....	.....	10	22	2	2	.....	36	.....	3	4	.....	.....	.....	7	43
7	Coamo .....	.....	5	12	.....	.....	.....	17	.....	2	2	2	.....	.....	6	23
	Juana Diaz .....	.....	2	7	1	.....	.....	10	.....	3	4	1	.....	.....	8	18
	Santa Isabel .....	.....	2	2	.....	.....	.....	4	.....	1	.....	.....	.....	.....	1	5
	District .....	.....	9	21	1	.....	.....	31	.....	6	6	3	.....	.....	15	46
8	Ponce	3	9	20	2	1	.....	35	1	17	18	12	.....	2	50	85
9	Lajas .....	.....	.....	7	.....	.....	.....	7	.....	1	1	.....	.....	.....	2	9
	Sabana Grande	1	5	1	1	1	.....	9	.....	1	6	.....	.....	.....	7	16
	Yauco	1	5	11	.....	.....	.....	18	.....	6	3	3	.....	.....	12	30
	District	2	10	19	2	1	.....	34	.....	8	10	3	.....	.....	21	55
10	Cabo Rojo	1	4	13	1	.....	.....	19	.....	1	.....	.....	.....	.....	1	20
	Maricao .....	.....	3	2	1	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	6
	San Germán	1	3	1	.....	.....	.....	5	.....	6	6	2	.....	.....	14	19
	District	2	10	16	2	.....	.....	30	.....	7	6	2	.....	.....	15	45
11	Añasco	1	6	6	.....	.....	.....	13	.....	3	4	1	.....	.....	8	21
	Las Marias .....	.....	1	4	1	.....	.....	6	.....	1	2	.....	.....	.....	3	9
	Mayaguez	1	10	11	3	.....	.....	25	.....	6	10	8	.....	1	25	50
	District	2	17	21	4	.....	.....	44	.....	10	16	9	.....	1	36	80
12	Aguaada .....	.....	2	5	1	.....	.....	8	.....	1	.....	.....	.....	.....	1	9
	Aguaadilla	1	5	13	1	.....	.....	20	.....	6	2	2	.....	.....	10	30
	San Sebastian	1	3	11	1	.....	.....	16	.....	1	1	.....	.....	.....	2	18
	District	2	10	29	3	.....	.....	44	.....	8	3	2	.....	.....	13	57

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY SEX—Continued.

School district.	Municipality.	Male.						Female.						Grand total.		
		Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	Total.	Principal.	Graded.	Rural.	English.	Agricultural.		Music and drawing.	Total.
COLORED—continued.																
7	Coamo		1	1				2								2
	Juana Diaz			2				2		1					1	3
	Santa Isabel			1				1		1					1	2
	District		1	4				5		2					2	7
8	Ponce		1	2				3			3				3	6
9	Lajas		1					1			1				1	2
	Sabana Grande			1				1								1
	Yauco															
	District		1	1				2			1				1	3
10	Cabo Rojo															
	Maricao			2				2								2
	San Germán			3				3		1	4				5	8
	District			5				5		1	4				5	10
11	Añasco															
	Las Marias			3				3								3
	Mayaguez			1				1		1	2				3	4
	District			4				4		1	2				3	7
12	Aguada			1				1		1					1	2
	Aguadilla		1	3				4								4
	San Sebastian															
	District		1	4				5		1					1	6
13	Camuy			1				1								1
	Isabela									1					1	1
	District			1				1		1					1	2
14	Arecibo			1				1		1	1				2	3
	Lares										2				2	2
	District			1				1		1	3				4	5
15	Adjuntas	1						1			1				1	2
	Utua										1				1	1
	District	1						1			2				2	3
16	Ciales															
	Manatí			1				1			1				1	2
	Morovis		1					1		1					1	2
	District		1	1				2		1	1				2	4
17	Toa Alta			1				1			1				1	2
	Vega Baja	1		2				3			1				1	4
	District	1		3				4			2				2	6
18	Bayamón	1	4	10				15		5	5	1			11	26
	Vieques		1	1				2			1				1	2
	Total colored	3	17	50	1			71		18	26	1			45	116
	Total white	27	191	367	38	11		634	2	169	121	78		6	376	1,010
	Grand total	30	208	417	39	11		705	2	187	147	79		6	421	1,126

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY SEX—Continued.

School district.	Municipality.	Male.						Female.						Grand total.
		High.	Industrial.	Night. ^a	Night, exclusive of duplicates. ^b	Kindergarten.	Total.	High.	Industrial.	Night. ^a	Night, exclusive of duplicates. ^b	Kindergarten.	Total.	
WHITE.														
1	San Juan.....	4	5	3			9	4	3	1	1	2	10	19
2	{ Fajardo.....			1										
	{ Rio Grande.....			1										
	District.....			2										
3	{ Humacao.....			1										
	{ San Lorenzo.....			1										
	District.....			2										
4	Cayey.....			1										
5	Guayama.....			1						1				
7	{ Coamo.....			1										
	{ Juana Diaz.....			1										
	District.....			2										
8	Ponce.....	3	4	1			7	5	4			2	7	14
10	San Germán.....			1										
11	{ Añasco.....			1										
	{ Mayaguez.....	1	4	2			5	2				2	7	
	District.....	1	4	3			5	2				2	7	
12	San Sebastian.....			1										
14	{ Arecibo.....		3				3	3				3	6	
	{ Lares.....			1										
	District.....		3	1			3	3				3	6	
15	Utua.....			1										
16	Manatí.....			1										
	Total white.....	8	16	20			24	4	12	6	1	4	22	46
COLORED.														
11	Mayaguez.....		1				1							1
12	Aguadilla.....			1										
	Total colored.....		1	1			1							1
	Grand total.....	8	17	21			25	4	13	6	1	4	22	47

^aDuplicates not included in total.^bNot duplicated, included in total.

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY COLOR.

School district.	Municipality.	Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	High.	Industrial.	Night. ^a	Night, exclusive of duplicates. ^b	Kindergarten.	Grand total.
WHITE.													
1	Carolina	1	7	14	2	1							25
	Rio Piedras	1	4	8	1								14
	San Juan	4	40	3	18		3	8	8	4	1	2	87
	District	6	51	25	21	1	3	8	8	4	1	2	126
2	Fajardo	1	11	9	3					1			24
	Naguabo		2	7	1								10
	Rio Grande		8	16	2					1			26
	District	1	21	32	6					2			60
3	Humacao	1	7	8	2	1				1			19
	San Lorenzo		5	11	2					1			18
	Yabucoa	1	5	8	2								16
	District	2	17	27	6	1				2			53
4	Aguas Buenas		2	4	1								7
	Caguas	1	14	13	3								31
	Cayey	1	11	12	2					1			26
	District	2	27	29	6					1			61
5	Guayama	2	15	12	4	1				2			34
	Patillas		2	7	1								10
	District	2	17	19	5	1				2			44
6	Aibonito		5	8	1								14
	Barros		4	10		2							16
	Comerio		4	8	1								13
	District		13	26	2	2							43
7	Coamo		7	14	2					1			23
	Juana Diaz		5	11	2					1			18
	Santa Isabel		3	2									5
	District		15	27	4					2			46
8	Ponce	4	26	38	14	1	2	3	9	5		2	99
9	Lajas		1	8									9
	Sabana Grande	1	6	7	1	1							16
	Yauco	1	11	14	4								30
	District	2	18	29	5	1							55
10	Cabo Rojo	1	5	13	1								20
	Maricao		3	2	1								6
	San Germán	1	9	7	2					1			19
	District	2	17	22	4					1			45
11	Añasco	1	9	10	1					1			21
	Las Marias		2	6	1								9
	Mayaguez	1	16	21	11		1	1	6	2			37
	District	2	27	37	13		1	1	6	3			87
12	Aguada		3	5	1								9
	Agundilla	1	11	15	3								30
	San Sebastian	1	4	12	1					1			18
	District	2	18	32	5					1			57

^aDuplicates not included in total.^bNot duplicated included in total.

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY COLOR—Continued.

School district.	Municipality.	Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	High.	Industrial.	Night.	Night, exclusive of duplicates.	Kindergarten.	Grand total.
COLORED—continued.													
7	Coamo.....		1	1									2
	Juana Diaz.....		1	2									3
	Santa Isabel.....		1	1									2
	District.....		3	4									7
8	Ponce.....		1	5									6
9	Lajas.....		1	1									2
	Sabana Grande.....			1									1
	Yauco.....												
	District.....		1	2									3
10	Cabo Rojo.....												
	Maricao.....			2									2
	San Germán.....		1	7									8
	District.....		1	9									10
11	Añasco.....												
	Las Marias.....			3									3
	Mayaguez.....		1	3					1				5
	District.....		1	6					1				8
12	Aguada.....		1	1									2
	Aguadilla.....		1	3						1			4
	San Sebastian.....												
	District.....		2	4						1			6
13	Camuy.....			1									1
	Isabela.....		1										1
	District.....		1	1									2
14	Arecibo.....		1	2									3
	Lares.....			2									2
	District.....		1	4									5
15	Adjuntas.....	1		1									2
	Utua.....			1									1
	District.....	1		2									3
16	Ciales.....												
	Manatí.....			2									2
	Morovis.....		2										2
	District.....		2	2									4
17	Toa Alta.....			2									2
	Vega Baja.....	1		3									4
	District.....	1		5									6
18	Bayamón.....	1	9	15	1								26
	Vieques.....		1										1
	Total colored.....	3	35	76	2				1	1			117

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TOTAL TEACHERS, ALL CLASSES.

School district.	Municipality.	Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	High.	Industrial.	Night. ^a	Night, exclusive of duplicates. ^b	Kindergarten.	Total teachers employed.
1	Carolina	1	7	15	2	1							26
	Rio Piedras	1	5	8	1								15
	San Juan	4	41	4	18		3	8	8	4	1	2	89
	District	6	53	27	21	1	3	8	8	4	1	2	130
2	Fajardo	1	12	9	3					1			25
	Naguabo		3	7	1								11
	Rio Grande		8	17	2					1			27
	District	1	23	33	6					2			63
3	Humacao	1	9	9	2	1				1			22
	San Lorenzo		8	12	2					1			22
	Yabucoa	1	5	9	2								17
	District	2	22	30	6	1				2			61
4	Aguas Buenas		2	5	1								8
	Caguas	1	14	14	3								32
	Cayey	1	11	13	3					1			28
	District	2	27	32	7					1			68
5	Guayama	2	17	14	4	1				2			38
	Patillas		2	7	1								10
	District	2	19	21	5	1				2			48
6	Aibonito		6	8	1								15
	Barros		4	14		2							20
	Comerio		4	8	1								13
	District		14	30	2	2							48
7	Coamo		8	15	2					1			25
	Juana Diaz		6	13	2					1			21
	Santa Isabel		4	3									7
	District		18	31	4					2			53
8	Ponce	4	27	43	14	1	2	3	9	5		2	105
9	Lajas		2	9									11
	Sabana Grande	1	6	8	1	1							17
	Yauco	1	11	14	4								30
	District	2	19	31	5	1							58
10	Cabo Rojo	1	5	13	1								20
	Maricao		3	4	1								8
	San Germán	1	10	14	2					1			27
	District	2	18	31	4					1			55
11	Añasco	1	9	10	1					1			21
	Las Marias		2	9	1								12
	Mayaguez	1	17	24	11		1	1	7	2			62
	District	2	28	43	13		1	1	7	3			95
12	Aguada		4	6	1								11
	Agüadilla	1	12	18	3					1			34
	San Sebastián	1	4	12	1					1			18
	District	2	20	36	5					2			63
13	Camuy		12	13	3	1							29
	Isabela		4	10	1								15
	District		16	23	4	1							44

^a Duplicates, not included in total.^b Not duplicated, included in total.

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TOTAL TEACHERS, ALL CLASSES—Continued.

School district.	Municipality.	Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	High.	Industrial.	Night.	Night, exclusive of duplicates.	Kindergarten.	Total teachers employed.
14	Arecibo	1	18	24	3	.....	.....	.....	6	.....	.....	.....	52
	Lares	1	4	11	1	.....	.....	.....	.....	1	.....	.....	17
	District	2	22	35	4	.....	.....	.....	6	1	.....	.....	69
15	Adjuntas	1	6	9	2	.....	.....	.....	.....	.....	.....	.....	18
	Utúado	1	9	19	2	1	.....	.....	.....	1	.....	.....	32
	District	2	15	28	4	1	.....	.....	.....	1	.....	.....	50
16	Ciales .....	.....	5	11	1	.....	.....	.....	.....	.....	.....	.....	17
	Manatí .....	.....	10	12	2	.....	.....	.....	.....	1	.....	.....	24
	Morovis .....	.....	2	7	.....	.....	.....	.....	.....	.....	.....	.....	9
	District .....	.....	17	30	3	.....	.....	.....	.....	1	.....	.....	50
17	Toa Alta .....	.....	9	11	3	1	.....	.....	.....	.....	.....	.....	24
	Vega Baja	1	7	11	2	.....	.....	.....	.....	.....	.....	.....	21
	District	1	16	22	5	1	.....	.....	.....	.....	.....	.....	45
18	Bayamón	2	16	33	5	1	.....	.....	.....	.....	.....	.....	57
	Vieques .....	.....	5	5	1	.....	.....	.....	.....	.....	.....	.....	11
	.....	32	395	564	118	11	6	12	30	27	1	4	1,173

TOTAL TEACHERS, BY SEX.

School district.	Municipality.	White.			Colored.			Total male.	Total female.	Total teachers employed.
		Male.	Female.	Total.	Male.	Female.	Total.			
1	Carolina	20	5	25	1	.....	1	21	5	26
	Rio Piedras	11	3	14	1	.....	1	12	3	15
	San Juan	19	68	87	1	1	2	20	69	89
	District	50	76	126	3	1	4	53	77	130
2	Fajardo	14	10	24	.....	1	1	14	11	25
	Naguabo	8	2	10	1	.....	1	9	2	11
	Rio Grande	19	7	26	1	.....	1	20	7	27
	District	41	19	60	2	1	3	43	20	63
3	Humacao	13	6	19	2	1	3	15	7	22
	San Lorenzo	13	5	18	3	1	4	16	6	22
	Yabucoa	9	7	16	1	.....	1	10	7	17
	District	35	18	53	6	2	8	41	20	61
4	Agua Buenas	4	3	7	1	.....	1	5	3	8
	Caguas	18	13	31	.....	1	1	18	14	32
	Cayey	18	8	26	1	1	2	19	9	28
	District	40	24	64	2	2	4	42	26	68
5	Guayama	24	10	34	3	1	4	27	11	38
	Patillas	8	2	10	.....	.....	.....	8	2	10
	District	32	12	44	3	1	4	35	13	48
6	Aibonito	10	4	14	1	.....	1	11	4	15
	Barros	15	1	16	4	.....	4	19	1	20
	Comerio	11	2	13	.....	.....	.....	11	2	13
	District	36	7	43	5	.....	5	41	7	48

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TOTAL TEACHERS, BY SEX—Continued.

School district.	Municipality.	White.			Colored.			Total male.	Total female.	Total teachers employed.
		Male.	Fe-male.	Total.	Male.	Fe-male.	Total.			
7	Coamo	17	6	23	2	.....	2	19	6	25
	Juana Diaz.....	10	8	18	2	1	3	12	9	21
	Santa Isabel	4	1	5	1	1	2	5	2	7
	District	31	15	46	5	2	7	36	17	53
8	Ponce	42	57	99	3	3	6	45	60	105
9	Lajas.....	7	2	9	1	1	2	8	3	11
	Sabana Grande	9	7	16	1	.....	1	10	7	17
	Yauco	18	12	30	.....	.....	.....	18	12	30
	District	34	21	55	2	1	3	36	22	58
10	Cabo Rojo.....	19	1	20	.....	.....	.....	19	1	20
	Maricao	6	6	12	2	.....	2	8	.....	8
	San Germán	5	14	19	3	5	8	8	19	27
	District	30	15	45	5	5	10	35	20	55
11	Añasco.....	13	8	21	.....	.....	.....	13	8	21
	Las Marias.....	6	3	9	3	.....	3	9	3	12
	Mayaguez.....	30	27	57	2	3	5	32	30	62
	District	49	38	87	5	3	8	54	41	95
12	Aguada	8	1	9	1	1	2	9	2	11
	Aguadilla.....	20	10	30	4	.....	4	24	10	34
	San Sebastian	16	2	18	.....	.....	.....	16	2	18
	District	44	13	57	5	1	6	49	14	63
13	Camuy	23	5	28	1	.....	1	24	5	29
	Isabela.....	11	3	14	.....	1	1	11	4	15
	District	34	8	42	1	1	2	35	9	44
14	Arecibo	26	23	49	1	2	3	27	25	52
	Lares	11	4	15	.....	2	2	11	6	17
	District	37	27	64	1	4	5	38	31	69
15	Adjuntas.....	10	6	16	1	1	2	11	7	18
	Utuado	27	4	31	.....	1	1	27	5	32
	District	37	10	47	1	2	3	38	12	50
16	Ciales.....	14	3	17	.....	.....	.....	14	3	17
	Manati.....	14	8	22	1	1	2	15	9	24
	Morovis.....	7	.....	7	1	1	2	8	1	9
	District	35	11	46	2	2	4	37	13	50
17	Toa Alta	13	9	22	1	1	2	14	10	24
	Vega Baja	14	3	17	3	1	4	17	4	21
	District	27	12	39	4	2	6	31	14	45
18	Bayamón	18	13	31	15	11	26	33	24	57
	Vieques.....	6	2	8	2	1	3	8	3	11
	Total.....	658	398	1,056	72	45	117	730	443	1,173

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY SEX.

School district.	Municipality.	Male.						Female.						Grand total.		
		Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	Total.	Principal.	Graded.	Rural.	English.	Agricultural.		Music and drawing.	Total.
1	WHITE.															
	Carolina	1	4	15	1	1	.....	22	.....	3	1	1	.....	.....	5	27
	Rio Piedras	1	4	8	.....	.....	.....	13	.....	1	1	1	.....	.....	3	16
	San Juan	3	8	.....	.....	.....	.....	11	1	34	4	18	.....	3	60	71
	District	5	16	23	1	1	.....	46	1	38	6	20	.....	3	68	114
2	Fajardo	1	6	7	.....	.....	.....	14	.....	5	2	3	.....	.....	10	24
	Naguabo .....	.....	1	6	1	.....	.....	8	.....	1	1	.....	.....	.....	2	10
	Rio Grande .....	.....	4	16	1	.....	.....	21	.....	4	2	1	.....	.....	7	28
3	District	1	11	29	2	.....	.....	43	.....	10	5	4	.....	.....	19	62
	Humacao	1	3	7	1	1	.....	13	.....	4	1	1	.....	.....	6	19
	San Lorenzo .....	.....	3	9	1	.....	.....	13	.....	2	3	1	.....	.....	6	19
	Yabucoa	1	4	4	1	.....	.....	10	.....	1	5	1	.....	.....	7	17
4	District	2	10	20	3	1	.....	36	.....	7	9	3	.....	.....	19	55
	Aguas Buenas .....	.....	1	3	.....	.....	.....	4	.....	1	1	1	.....	.....	3	7
	Caguas	1	7	10	1	.....	.....	19	.....	7	4	3	.....	.....	14	33
	Cayey	1	9	7	1	.....	.....	18	.....	3	8	2	.....	.....	13	31
	District	2	17	20	2	.....	.....	41	.....	11	13	6	.....	.....	30	71
5	Guayama	2	10	9	2	1	.....	24	.....	5	3	2	.....	.....	10	34
	Patillas .....	.....	1	6	1	.....	.....	8	.....	1	1	.....	.....	.....	2	10
	District	2	11	15	3	1	.....	32	.....	6	4	2	.....	.....	12	44
6	Aibonito .....	.....	3	6	2	.....	.....	11	.....	2	2	.....	.....	.....	4	15
	Barros .....	.....	7	9	.....	2	.....	18	.....	.....	1	.....	.....	.....	1	19
	Comerio .....	.....	3	8	1	.....	.....	12	.....	1	1	1	.....	.....	3	15
	District .....	.....	13	23	3	2	.....	41	.....	3	4	1	.....	.....	8	49
7	Coamo .....	.....	5	13	.....	.....	.....	18	.....	2	2	2	.....	.....	6	24
	Juana Diaz .....	.....	2	7	1	.....	.....	10	.....	3	4	1	.....	.....	8	18
	Santa Isabel .....	.....	3	3	1	.....	.....	7	.....	1	.....	.....	.....	.....	1	8
	District .....	.....	10	23	2	.....	.....	35	.....	6	6	3	.....	.....	15	50
8	Ponce	3	10	21	3	1	.....	38	1	17	18	12	.....	2	50	88
9	Lajas .....	.....	.....	8	1	.....	.....	9	.....	1	1	.....	.....	.....	2	11
	Sabana Grande	1	5	1	1	1	.....	9	.....	1	7	.....	.....	.....	8	17
	Yauco	1	5	11	1	.....	.....	18	.....	6	4	3	.....	.....	13	31
	District	2	10	20	3	1	.....	36	.....	8	12	3	.....	.....	23	59
10	Cabo Rojo	1	4	13	1	.....	.....	19	.....	1	1	.....	.....	.....	2	21
	Maricao .....	.....	3	2	1	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	6
	San Germán	1	3	4	.....	.....	.....	8	.....	7	6	2	.....	.....	15	23
	District	2	10	19	2	.....	.....	33	.....	8	7	2	.....	.....	17	50
11	Añasco	1	6	6	1	.....	.....	14	.....	3	4	1	.....	.....	8	22
	Las Marias .....	.....	1	5	1	.....	.....	7	.....	1	2	3	.....	.....	6	13
	Mayaguez	1	10	11	3	.....	.....	25	.....	6	10	11	.....	1	28	53
	District	2	17	22	5	.....	.....	46	.....	10	16	15	.....	1	42	88
12	Aguada .....	.....	2	6	1	.....	.....	9	.....	1	.....	.....	.....	.....	1	10
	Aguadilla	1	5	13	1	.....	.....	20	.....	6	2	2	.....	.....	10	30
	San Sebastian	1	3	11	1	.....	.....	16	.....	1	1	.....	.....	.....	2	18
	District	2	10	30	3	.....	.....	45	.....	8	3	2	.....	.....	13	58

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY SEX—Continued.

School district.	Municipality.	Male.						Female.						Grand total.		
		Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	Total.	Principal.	Graded.	Rural.	English.	Agricultural.		Music and drawing.	Total.
	COLORED—continued.															
7	Coamo		1	2				3								3
	Juana Diaz			2				2		1					1	3
	Santa Isabel			2				2		1					1	3
	District		1	6				7		2					2	9
8	Ponce		1	2				3			3				3	6
9	Lajas		1					1			2				2	3
	Sabana Grande		1	1				2			1				1	3
	Yauco															
	District		2	1				3			3				3	6
10	Cabo Rojo															
	Maricao			2				2								2
	San Germán			3				3		1	4				5	8
	District			5				5		1	4				5	10
11	Añasco															
	Las Marias			3				3								3
	Mayaguez			1				1		1	2				3	4
	District			4				4		1	2				3	7
12	Aguada			1				1		1					1	2
	Agüadilla		1	3				4								4
	San Sebastián															
	District		1	4				5		1					1	6
13	Camuy		1	1				1								1
	Isabela			1				1		1					1	2
	District			2				2		1					1	3
14	Arecibo			1				1		1	1				2	3
	Lares										2				2	2
	District			1				1		1	3				4	5
15	Adjuntas		1					1			1				1	2
	Utúado										1				1	1
	District		1					1			2				2	3
16	Ciales															
	Manatí			2				2			1				1	3
	Morovis		1					1		1					1	2
	District		1	2				3		1	1				2	5
17	Toa Alta			1				1			1				1	2
	Vega Baja		1	2				3			2				2	5
	District		1	3				4			3				3	7
18	Bayamón		1	4	10			15		5	5	1			11	26
	Vieques			1	1			2			2	1			3	5
	Total colored	3	20	55	1			79		18	30	2			50	129
	Total white	28	198	392	46	11		675	2	174	139	90		6	411	1,086
	Grand total	31	218	447	47	11		754	2	192	169	92		6	461	1,215

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY SEX—Continued

School district.	Municipality.	Male.						Female.						Grand total.
		High.	Industrial.	Night. <i>a</i>	Night, exclu- sive of du- plicates. <i>b</i>	Kindergarten.	Total.	High.	Industrial.	Night. <i>a</i>	Night, exclu- sive of du- plicates. <i>b</i>	Kindergarten.	Total.	
WHITE.														
1	San Juan.....	4	6	3			10	4	4	2	1	2	11	21
2	{ Fajardo.....			1										
	{ Río Grande.....			1										
	District.....			2										
3	{ Humacao.....			2										
	{ San Lorenzo.....			2										
	District.....			4										
4	Cayey.....			1										
5	Guayama.....			1						1				
7	{ Coamo.....			1										
	{ Juana Díaz.....			1										
	District.....			2										
8	Ponce.....	3	4	1			7		4	4		3	7	14
10	San Germán.....			1										
11	{ Añasco.....			1										
	{ Mayaguez.....	2	4	2			6		2				2	8
	District.....	2	4	3			6		2				2	8
12	San Sebastian.....			1										
14	{ Arecibo.....		3				3		3				3	6
	{ Lares.....			1										
	District.....		3	1			3		3				3	6
15	Utuado.....			1										
16	Manatí.....			1										
-	Total white.....	9	17	22			26	4	13	7	1	5	23	49
COLORED.														
11	San Juan.....									1				
11	Mayaguez.....		1				1							1
12	Aguadilla.....			1										
	Total colored.....		1	1			1							1
	Grand total.....	9	18	23			27	4	13	7	1	5	23	50

a Duplicates, not included in total.*b* Not duplicated, included in total.

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY COLOR.

School district.	Municipality.	Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	High.	Industrial.	Night. ^a	Night, exclusive of duplicates. ^b	Kindergarten.	Grand total.
WHITE.													
1	Carolina.....	1	7	16	2	1							27
	Rio Piedras.....	1	5	9	1								16
	San Juan.....	4	42	4	18			8	10	5	1	2	92
	District.....	6	54	29	21	1	3	8	10	5	1	2	135
2	Fajardo.....	1	11	9	3					1			24
	Naguabo.....		2	7	1								10
	Rio Grande.....		8	18	2					1			28
	District.....	1	21	34	6					2			62
3	Humacao.....	1	7	8	2	1				2			19
	San Lorenzo.....		5	12	2					2			19
	Yabucoa.....	1	5	9	2								17
	District.....	2	17	29	6	1				4			55
4	Aguas Buenas.....		2	4	1								7
	Caguas.....	1	14	14	4								33
	Cayey.....	1	12	15	3					1			31
	District.....	2	28	33	8					1			71
5	Guayama.....	2	15	12	4	1				2			34
	Patillas.....		2	7	1								10
	District.....	2	17	19	5	1				2			44
6	Aibonito.....		5	8	2								15
	Barros.....		7	10		2							19
	Comerio.....		4	9	2								15
	District.....		16	27	4	2							49
7	Coamo.....		7	15	2					1			24
	Juana Diaz.....		5	11	2					1			18
	Santa Isabel.....		4	3	1								8
	District.....		16	29	5					2			50
8	Ponce.....	4	27	39	15	1	2	3	8	5		3	102
9	Lajas.....		1	9	1								11
	Sabana Grande.....		6	8	1	1							17
	Yauco.....	1	11	15	4								31
	District.....	2	18	32	6	1							59
10	Cabo Rojo.....	1	5	14	1								21
	Maricao.....		3	2	1								6
	San Germán.....	1	10	10	2					1			23
	District.....	2	18	26	4					1			50
11	Añasco.....	1	9	10	2					1			22
	Las Marias.....		2	7	4								13
	Mayaguez.....	1	16	21	14		1	2	6	2			61
	District.....	2	27	38	20		1	2	6	3			96
12	Aguada.....		3	6	1								10
	Aguadilla.....	1	11	15	3								30
	San Sebastian.....	1	4	12	1					1			18
	District.....	2	18	33	5					1			58

^aDuplicates not included in total.^bNot duplicated, included in total.

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY COLOR—Continued.

School district.	Municipality.	Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	High.	Industrial.	Night.	Night, exclusive of duplicates.	Kindergarten.	Grand total.
WHITE—continued.													
13	Camuy		13	14	4	1							32
	Isabela		3	10	1								14
	District		16	24	5	1							46
14	Arecibo	2	17	25	3				6				53
	Lares	1	4	10	1					1			16
	District	3	21	35	4				6	1			69
15	Adjuntas		6	9	2								17
	Utua	1	9	18	2	1				1			31
	District	1	15	27	4	1				1			48
16	Ciales		5	11	1								17
	Manatí		10	11	2					1			23
	Morovis			7	1								8
	District		15	29	4					1			48
17	Toa Alta		9	10	4	1							24
	Vega Baja		7	8	3								18
	District		16	18	7	1							42
18	Bayamón	1	7	26	5	1							40
	Vieques		5	4	2								11
	Total white	30	372	531	136	11	6	13	30	29	1	5	1,135
COLORED.													
1	Carolina			1									1
	Río Piedras		1										1
	San Juan		3	2						1			5
	District		4	3						1			7
2	Fajardo		1										1
	Naguabo		1										1
	Río Grande			1									1
	District		2	1									3
3	Humacao		2	1									3
	San Lorenzo		3	1									4
	Yabucoa			1									1
	District		5	3									8
4	Aguas Buenas			1									1
	Caguas			2									2
	Cayey				1								1
	District			3	1								4
5	Guayama		2	2									4
	Patillas												
	District		2	2									4
6	Aibonito		1										1
	Barros			4									4
	Comerio												
	District		1	4									5

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TEACHERS, BY COLOR—Continued.

School district.	Municipality.	Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	High.	Industrial.	Night.	Night, exclusive of duplicates.	Kindergarten.	Grand total.
COLORED—continued.													
7	Coamo		1	2									3
	Juana Diaz		1	2									3
	Santa Isabel		1	2									3
	District		3	6									9
8	Ponce		1	5									6
9	Lajas		1	2									3
	Sabana Grande		1	2									3
	Yauco												
	District		2	4									6
10	Caba Rojo												
	Maricao			2									2
	San Germán		1	7									8
	District		1	9									10
11	Añasco												
	Las Marias			3									3
	Mayaguez		1	3					1				5
	District		1	6					1				8
12	Aguada		1	1									2
	Aguadilla		1	3						1			4
	San Sebastian												
	District		2	4						1			6
13	Camuy			1									1
	Isabela		1	1									2
	District		1	2									3
14	Arecibo		1	2									3
	Lares			2									2
	District		1	4									5
15	Adjuntas	1		1									2
	Utuado			1									1
	District	1		2									3
16	Ciales												
	Manatí			3									3
	Morovis		2										2
	District		2	3									5
17	Toa Alta			2									2
	Vega Baja	1		4									5
	District	1		6									7
18	Bayamón	1	9	15	1								26
	Vieques		1	3	1								5
	Total colored	3	38	85	3				1	2			130

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TOTAL TEACHERS, ALL CLASSES.

School district.	Municipality.	Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	High.	Industrial.	Night. ^a	Night, exclusive of duplicates. ^b	Kindergarten.	Total teachers employed.
1	Carolina	1	7	17	2	1							28
	Rio Piedras	1	6	9	1								17
	San Juan	4	45	6	18		3	8	10	6	1	2	97
	District	6	58	32	21	1	3	8	10	6	1	2	142
2	Fajardo	1	12	9	3					1			25
	Naguabo		3	7									11
	Rio Grande		8	19	2					1			29
	District	1	23	35	6					2			65
3	Humacao	1	9	9	2	1				2			22
	San Lorenzo		8	13	2					2			23
	Yabucoa	1	5	10	2								18
	District	2	22	32	6	1				4			63
4	Aguas Buenas		2	5	1								8
	Caguas	1	14	16	4								35
	Cayey	1	12	15	4					1			32
	District	2	28	36	9					1			75
5	Guayma	2	17	14	4	1				2			38
	Patillas		2	7	1								10
	District	2	19	21	5	1				2			48
6	Aibonito		6	8	2								16
	Barros		7	14		2							23
	Comerio		4	9	2								15
	District		17	31	4	2							54
7	Coamo		8	17	2					1			27
	Juana Diaz		6	13	2					1			21
	Santa Isabel		5	5	1								11
	District		19	35	5					2			59
8	Ponce	4	28	44	15	1	2	3	8	5		3	108
9	Lajas		2	11	1								14
	Sabana Grande	1	7	10	1	1							20
	Yauco	1	11	15	4								31
	District	2	20	36	6	1							65
10	Cabo Rojo	1	5	14	1								21
	Maricao		3	4	1								8
	San Germán	1	11	17	2					1			31
	District	2	19	35	4					1			60
11	Añasco	1	9	10	2					1			22
	Las Marias		2	10	4								16
	Mayaguez	1	17	24	14		1	2	7	2			66
	District	2	28	44	20		1	2	7	3			104
12	Aguada		4	7	1								12
	Aguadilla	1	12	18	3					1			34
	San Sebastian	1	4	12	1					1			18
	District	2	20	37	5					2			64
13	Camuy		13	15	4	1							33
	Isabela		4	11	1								16
	District		17	26	5	1							49

^aDuplicates, not included in total.

^bNot duplicated, included in total.

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TOTAL TEACHERS, ALL CLASSES—Continued.

School district.	Municipality.	Principal.	Graded.	Rural.	English.	Agricultural.	Music and drawing.	High.	Industrial.	Night.	Night, exclusive of duplicates.	Kindergarten.	Total teachers employed.
14	Arecibo	2	18	27	3	.....	.....	.....	6	.....	.....	.....	56
	Lares	1	4	12	1	.....	.....	.....	.....	1	.....	.....	18
	District	3	22	39	4	.....	.....	.....	6	1	.....	.....	74
15	Adjuntas	1	6	10	.....	.....	.....	.....	.....	.....	.....	.....	19
	Utuado	1	9	19	2	1	.....	.....	.....	1	.....	.....	32
	District	2	15	29	4	1	.....	.....	.....	1	.....	.....	51
16	Ciales .....	.....	5	11	1	.....	.....	.....	.....	.....	.....	.....	17
	Manatí .....	.....	10	14	2	.....	.....	.....	.....	1	.....	.....	26
	Morovis .....	.....	2	7	1	.....	.....	.....	.....	.....	.....	.....	10
	District .....	.....	17	32	4	.....	.....	.....	.....	1	.....	.....	53
17	Toa Alta .....	.....	9	12	4	1	.....	.....	.....	.....	.....	.....	26
	Vega Baja	1	7	12	3	.....	.....	.....	.....	.....	.....	.....	23
	District	1	16	24	7	1	.....	.....	.....	.....	.....	.....	49
18	Bayamón	2	16	41	6	1	.....	.....	.....	.....	.....	.....	66
	Vieques .....	.....	6	7	3	.....	.....	.....	.....	.....	.....	.....	16
	Total	33	410	616	139	11	6	13	31	31	1	5	1,265

TOTALS, BY SEX.

School district.	Municipality.	White.			Colored.			Total male.	Total female.	Total teachers employed.
		Male.	Female.	Total.	Male.	Female.	Total.			
1	Carolina	22	5	27	1	.....	1	23	5	28
	Río Piedras	13	3	16	1	.....	1	14	3	17
	San Juan	21	71	92	4	1	5	25	72	97
	District	56	79	135	6	1	7	62	80	142
2	Fajardo	14	10	24	.....	1	1	14	11	25
	Naguabo	8	2	10	1	.....	1	9	2	11
	Río Grande	21	7	28	1	.....	1	22	7	29
	District	43	19	62	2	1	3	45	20	65
3	Humacao	13	6	19	2	1	3	15	7	22
	San Lorenzo	13	6	19	3	1	4	16	7	23
	Yabucoa	10	7	17	1	.....	1	11	7	18
	District	36	19	55	6	2	8	42	21	63
4	Aguas Buenas	4	3	7	1	.....	1	5	3	8
	Caguas	19	14	33	.....	2	2	19	16	35
	Cayey	18	13	31	1	.....	1	19	13	32
	District	41	30	71	2	2	4	43	32	75
5	Guayama	24	10	34	3	1	4	27	11	38
	Patillas	8	2	10	.....	.....	.....	8	2	10
	District	32	12	44	3	1	4	35	13	48
6	Aibonito	11	4	15	1	.....	1	12	4	16
	Barros	18	1	19	4	.....	4	22	1	23
	Comerio	12	3	15	.....	.....	.....	12	3	15
	District	41	8	49	5	.....	5	46	8	54

TABLE VII.—*Distribution (teachers) by sex and color, common schools and special schools—Continued.*

TOTALS, BY SEX—Continued.

School district.	Municipality.	White.			Colored.			Total male.	Total female.	Total teachers employed.
		Male.	Female.	Total.	Male.	Female.	Total.			
7	Coamo	18	6	24	3	.....	3	21	6	27
	Juana Diaz	10	8	18	2	1	3	12	9	21
	Santa Isabel	7	1	8	2	1	3	9	2	11
	District	35	15	50	7	2	9	42	17	59
8	Ponce	45	57	102	3	3	6	48	60	108
9	Lajas	9	2	11	1	2	3	10	4	14
	Sabana Grande	9	8	17	2	1	3	11	9	20
	Yauco	18	13	31	.....	.....	.....	18	13	31
	District	36	23	59	3	3	6	39	26	65
10	Cabo Rojo	19	2	21	.....	.....	.....	19	2	21
	Maricao	6	.....	6	2	.....	2	8	.....	8
	San Germán	8	15	23	3	5	8	11	20	31
	District	33	17	50	5	5	10	38	22	60
11	Añasco	14	8	22	.....	.....	.....	14	8	22
	Las Marias	7	6	13	3	.....	3	10	6	16
	Mayaguez	31	30	61	2	3	5	33	33	66
	District	52	44	96	5	3	8	57	47	104
12	Aguada	9	1	10	1	1	2	10	2	12
	Aguadilla	20	10	30	4	.....	4	24	10	34
	San Sebastian	16	2	18	.....	.....	.....	16	2	18
	District	45	13	58	5	1	6	50	14	64
13	Camuy	25	7	32	1	.....	1	26	7	33
	Isabela	11	3	14	1	1	2	12	4	16
	District	36	10	46	2	1	3	38	11	49
14	Arecibo	30	23	53	1	2	3	31	25	56
	Lares	12	4	16	.....	2	2	12	6	18
	District	42	27	69	1	4	5	43	31	74
15	Adjuntas	11	6	17	1	1	2	12	7	19
	Utua	27	4	31	.....	1	1	27	5	32
	District	38	10	48	1	2	3	39	12	51
16	Ciales	14	3	17	.....	.....	.....	14	3	17
	Manatí	15	8	23	2	1	3	17	9	26
	Morovis	8	.....	8	1	1	2	9	1	10
	District	37	11	48	3	2	5	40	13	53
17	Toa Alta	14	10	24	1	1	2	15	11	26
	Vega Baja	14	4	18	3	2	5	17	6	23
	District	28	14	42	4	3	7	32	17	49
18	Bayamón	18	22	40	15	11	26	33	33	66
	Vieques	7	4	11	2	3	5	9	7	16
	District .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total	701	434	1,135	80	50	130	781	484	1,265

TABLE VIII.—Total number of schools open, by municipalities and by school districts, for each respective class of common schools, and totals for the common schools, special schools, and common and special schools.

(First term, 1903-4.)

COMMON SCHOOLS AND SPECIAL SCHOOLS.

School district.	Municipality.	Principal.	Graded.	Rural.	Total common schools.	High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total special schools.	Grand total.
1	Carolina	1	7	15	23	.....	.....	.....	1	.....	1	24
	Rio Piedras	1	5	8	14	.....	.....	.....	.....	.....	14	14
	Rio Juan	4	51	6	61	1	1	3	.....	4	9	70
	District	6	63	29	98	1	1	3	1	4	10	108
2	Fajardo	1	14	8	23	.....	.....	1	.....	.....	1	24
	Naguabo .....	.....	4	6	10	.....	.....	.....	.....	.....	10	10
	Rio Grande .....	.....	9	18	27	.....	.....	1	.....	.....	1	28
	District	1	27	32	60	.....	.....	2	.....	.....	2	62
3	Humacao	1	10	8	19	.....	.....	1	1	.....	2	21
	San Lorenzo .....	.....	9	11	20	.....	.....	1	1	.....	2	22
	Yabucoa	1	6	8	15	.....	.....	.....	.....	.....	15	15
	District	2	25	27	54	.....	.....	2	2	.....	4	58
4	Agua Buenas .....	.....	4	5	9	.....	.....	.....	.....	.....	.....	9
	Caguas	1	14	14	29	.....	.....	.....	.....	.....	.....	29
	Cayey	1	11	13	25	.....	.....	1	.....	.....	1	26
	District	2	29	32	63	.....	.....	1	.....	.....	1	64
5	Guayama	2	16	12	30	.....	.....	1	1	.....	2	32
	Patillas .....	.....	2	7	9	.....	.....	.....	.....	.....	.....	9
	District	2	18	19	39	.....	.....	1	1	.....	2	41
6	Aibonito .....	.....	6	7	13	.....	.....	.....	.....	.....	.....	13
	Barros .....	.....	7	14	21	.....	.....	.....	2	.....	2	23
	Comerio .....	.....	4	8	12	.....	.....	.....	.....	.....	.....	12
	District .....	.....	17	29	46	.....	.....	.....	2	.....	2	48
7	Coamo .....	.....	8	17	25	.....	.....	1	.....	.....	1	26
	Juana Diaz .....	.....	6	12	18	.....	.....	1	.....	.....	1	19
	Santa Isabel .....	.....	4	4	8	.....	.....	.....	.....	.....	.....	8
	District .....	.....	18	33	51	.....	.....	2	.....	.....	2	53
8	Ponce	3	43	40	86	1	.....	5	1	2	9	95
9	Lajas .....	.....	2	8	10	.....	.....	.....	1	.....	1	11
	Sabana Grande	1	6	8	15	.....	.....	.....	1	.....	1	16
	Yauco	1	14	14	29	.....	.....	.....	.....	.....	.....	29
	District	2	22	30	54	.....	.....	.....	2	.....	2	56
10	Cabo Rojo	1	5	11	17	.....	.....	.....	1	.....	1	18
	Maricao .....	.....	3	4	7	.....	.....	.....	.....	.....	.....	7
	San German	1	10	14	25	.....	.....	1	.....	.....	1	26
	District	2	18	29	49	.....	.....	1	1	.....	2	51
11	Añasco	1	7	9	17	.....	.....	1	.....	.....	1	18
	Las Marias .....	.....	2	9	11	.....	.....	.....	.....	.....	.....	11
	Mayaguez .....	.....	23	20	43	1	1	2	.....	.....	4	47
	District	1	32	38	71	1	1	3	.....	.....	5	76
12	Aguada .....	.....	4	6	10	.....	.....	.....	.....	.....	.....	10
	Aguadilla	1	13	18	32	.....	.....	1	.....	.....	1	33
	San Sebastian	1	4	12	17	.....	.....	1	.....	.....	1	18
	District	2	21	36	59	.....	.....	2	.....	.....	2	61
13	Camuy .....	.....	12	14	26	.....	.....	.....	1	.....	1	27
	Isabela .....	.....	4	10	14	.....	.....	.....	.....	.....	.....	14
	District .....	.....	16	24	40	.....	.....	.....	1	.....	1	41

TABLE VIII.—Total number of schools open, by municipalities and by school districts, for each respective class of common schools, and totals for the common schools, special schools, and common and special schools—Continued.

COMMON SCHOOLS AND SPECIAL SCHOOLS—Continued.

School district.	Municipality.	Principal.	Graded.	Rural.	Total common schools.	High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total special schools.	Grand total.
14	Arceibo	1	17	25	43							43
	Lares	1	4	11	16			1			1	17
	District	2	21	36	59			1			1	60
15	Adjuntas	1	6	9	16							16
	Utuaado	1	9	15	25			1	1		2	27
	District	2	15	24	41			1	1		2	43
16	Ciales		5	11	16							16
	Manati		11	11	22			1			1	23
	Morovis		3	7	10							10
	District		19	29	48			1			1	49
17	Toa Alta		10	10	20				1		1	21
	Vega Baja	1	8	11	20							20
	District	1	18	21	40				1		1	41
18	Bayamón	2	20	35	57				1		1	58
	Vieques		5	6	11							11
	Total	30	447	549	1,026	3	2	25	14	6	50	1,076

(Second term, 1903-4.)

1	Carolina	1	7	15	23				1		1	24
	Rio Piedras	1	5	8	14							14
	San Juan	4	56	5	65	1	1	4		4	10	75
	District	6	68	28	102	1	1	4	1	4	11	113
2	Fajardo	1	14	8	23			1			1	24
	Naguabo		3	6	9							9
	Rio Grande		9	17	26			1			1	27
	District	1	26	31	58			2			2	60
3	Humacao	1	11	8	20			1	1		2	22
	San Lorenzo		9	11	20			1	1		2	22
	Yabucoa	1	6	8	15							15
	District	2	26	27	55			2	2		4	59
4	Aguas Buenas		2	5	7							7
	Caguas	1	14	14	29							29
	Cayey	1	11	13	25			1			1	26
	District	2	27	32	61			1			1	62
5	Guayama	2	16	12	30			1	1		2	32
	Patillas		2	7	9							9
	District	2	18	19	39			1	1		2	41
6	Aibonito		6	7	13							13
	Barros		4	14	18				2		2	20
	Comerio		4	8	12							12
	District		14	29	43				2		2	45
7	Coamo		8	15	23			1			1	24
	Juana Diaz		6	12	18			1			1	19
	Santa Isabel		4	3	7							7
	District		18	30	48			2			2	50
8	Ponce	4	38	42	84	1	1	5	1	2	10	94

TABLE VIII.—Total number of schools open, by municipalities and by school districts, for each respective class of common schools, and totals for the common schools, special schools, and common and special schools—Continued.

COMMON SCHOOLS AND SPECIAL SCHOOLS—Continued.

School district.	Municipality.	Principal.	Graded.	Rural.	Total common schools.	High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total special schools.	Grand total.
9	Lajas.....	1	2	8	10	.....	.....	.....	1	.....	1	11
	Sabana Grande.....	1	6	8	15	.....	.....	.....	1	.....	1	16
	Yauco.....	1	13	15	29	.....	.....	.....	.....	.....	.....	29
	District.....	2	21	31	54	.....	.....	.....	2	.....	2	56
10	Cabo Rojo.....	1	5	11	17	.....	.....	.....	1	.....	1	18
	Maricao.....	.....	3	4	7	.....	.....	.....	.....	.....	.....	7
	San German.....	1	10	14	25	.....	.....	1	.....	.....	1	26
	District.....	2	18	29	49	.....	.....	1	1	.....	2	51
11	Añasco.....	1	8	10	19	.....	.....	1	.....	.....	1	20
	Las Marias.....	.....	2	9	11	.....	.....	.....	.....	.....	.....	11
	Mayaguez.....	.....	26	20	46	1	1	1	.....	.....	3	49
	District.....	1	36	39	76	1	1	2	.....	.....	4	80
12	Aguada.....	.....	4	6	10	.....	.....	.....	.....	.....	.....	10
	Aguadilla.....	1	13	17	31	.....	.....	1	.....	.....	1	32
	San Sebastian.....	1	4	12	17	.....	.....	1	.....	.....	1	18
	District.....	2	21	35	58	.....	.....	2	.....	.....	2	60
13	Camuy.....	.....	12	12	24	.....	.....	.....	1	.....	1	25
	Isabela.....	.....	4	10	14	.....	.....	.....	.....	.....	.....	14
	District.....	.....	16	22	38	.....	.....	.....	1	.....	1	39
14	Arecibo.....	.....	19	25	44	.....	1	.....	.....	.....	1	45
	Lares.....	1	4	11	16	.....	.....	1	.....	.....	1	17
	District.....	1	23	36	60	.....	1	1	.....	.....	2	62
15	Adjuntas.....	1	6	9	16	.....	.....	.....	.....	.....	.....	16
	Utua.....	1	9	19	29	.....	.....	1	1	.....	2	31
	District.....	2	15	28	45	.....	.....	1	1	.....	2	47
16	Ciales.....	.....	5	11	16	.....	.....	.....	.....	.....	.....	16
	Manati.....	.....	11	12	23	.....	.....	1	.....	.....	1	24
	Morovis.....	.....	2	7	9	.....	.....	.....	.....	.....	.....	9
	District.....	.....	18	30	48	.....	.....	1	.....	.....	1	49
17	Toa Alta.....	.....	10	10	20	.....	.....	.....	1	.....	1	21
	Vega Baja.....	1	8	11	20	.....	.....	.....	.....	.....	.....	20
	District.....	1	18	21	40	.....	.....	.....	1	.....	1	41
18	Bayamón.....	2	19	34	55	.....	.....	.....	1	.....	1	56
	Vieques.....	.....	5	5	10	.....	.....	.....	.....	.....	.....	10
	District.....	2	24	39	65	.....	.....	.....	1	.....	1	67
	Total.....	30	445	548	1,023	3	4	25	14	6	52	1,075

(Third Term, 1903-4.)

1	Carolina.....	1	7	15	23	.....	.....	.....	1	.....	1	24
	Rio Piedras.....	1	5	8	14	.....	.....	.....	.....	.....	.....	14
	San Juan.....	4	54	5	63	1	1	3	.....	4	9	72
	District.....	6	66	28	100	1	1	3	1	4	10	110
2	Fajardo.....	1	14	8	23	.....	.....	1	.....	.....	1	24
	Naguabo.....	.....	3	6	9	.....	.....	.....	.....	.....	.....	9
	Rio Grande.....	.....	9	17	26	.....	.....	1	.....	.....	1	27
	District.....	1	26	31	58	.....	.....	2	.....	.....	2	60

TABLE VIII.—Total number of schools open, by municipalities and by school districts, for each respective class of common schools, and totals for the common schools, special schools, and common and special schools—Continued.

COMMON SCHOOLS AND SPECIAL SCHOOLS—Continued.

School district.	Municipality.	Principal.	Graded.	Rural.	Total common schools.	High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total special schools.	Grand total.
16	Ciales .....	...	5	11	16	...	...	...	...	...	...	16
	Manatí .....	...	11	12	23	...	...	1	...	...	1	24
	Morovis .....	...	2	7	9	...	...	...	...	...	...	9
	District .....	...	18	30	48	...	...	1	...	...	1	49
17	Toa Alta .....	...	10	10	20	...	...	...	1	...	1	21
	Vega Baja	1	8	11	20	...	...	...	...	...	...	20
	District	1	18	21	40	...	...	...	1	...	1	41
18	Bayamón	2	19	34	55	...	...	...	1	...	1	56
	Vieques .....	...	5	5	10	...	...	...	...	...	...	10
	Total	30	445	543	1,018	3	4	24	14	6	51	1,069

(School year 1903-4.)

1	Carolina	1	7	15	23	...	...	...	1	...	1	24
	Rio Piedras	1	5	8	14	...	...	...	...	...	...	14
	San Juan	4	60	6	70	1	1	4	...	4	40	80
	District	6	72	29	107	1	1	4	1	4	11	118
2	Fajardo	1	14	8	23	...	...	1	...	...	1	24
	Naguabo .....	...	4	6	10	...	...	...	...	...	...	10
	Rio Grande .....	...	9	18	27	...	...	1	...	...	1	28
	District	1	27	32	60	...	...	2	...	...	2	62
3	Humacao	1	11	8	20	...	...	1	1	...	2	22
	San Lorenzo .....	...	9	12	21	...	...	1	1	...	2	23
	Yabucoa	1	6	8	15	...	...	...	...	...	...	15
	District	2	26	28	56	...	...	2	2	...	4	60
4	Aguas Buenas .....	...	4	5	9	...	...	...	...	...	...	9
	Caguas	1	14	14	29	...	...	...	...	...	...	29
	Cayey	1	11	13	25	...	...	1	...	...	1	26
	District	2	29	32	63	...	...	1	...	...	1	64
5	Guayama	2	16	12	30	...	...	1	1	...	2	32
	Patillas .....	...	2	7	9	...	...	...	...	...	...	9
	District	2	18	19	39	...	...	1	1	...	2	41
6	Aibonito .....	...	6	7	13	...	...	...	...	...	...	13
	Barros .....	...	7	14	21	...	...	...	2	...	2	23
	Comerio .....	...	4	8	12	...	...	...	...	...	...	12
	District .....	...	17	29	46	...	...	...	2	...	2	48
7	Coamo .....	...	8	17	25	...	...	1	...	...	1	26
	Juana Díaz .....	...	6	12	18	...	...	1	...	...	1	19
	Santa Isabel .....	...	4	4	8	...	...	...	...	...	...	8
	District .....	...	18	33	51	...	...	2	...	...	2	53
8	Ponce	4	45	43	92	1	1	5	1	2	10	102
9	Lajas .....	...	2	8	10	...	...	...	1	...	1	11
	Sabana Grande	1	6	8	15	...	...	...	1	...	1	16
	Yauco	1	14	15	30	...	...	...	...	...	...	30
	District	2	22	31	55	...	...	...	2	...	2	57

TABLE VIII.—Total number of schools open, by municipalities and by school districts, for each respective class of common schools, and totals for the common schools, special schools, and common and special schools—Continued.

COMMON SCHOOLS AND SPECIAL SCHOOLS—Continued.

School district.	Municipality.	Principal.	Graded.	Rural.	Total common schools.	High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total special schools.	Grand total.
10	Cabo Rojo	1	5	11	17	...	...	...	1	...	1	18
	Maricao .....	...	3	4	7	...	...	...	...	...	...	7
	San Germán	1	10	14	25	...	...	1	...	...	1	26
	District	2	18	29	49	...	...	1	1	...	2	51
11	Añasco	1	8	10	19	...	...	1	...	...	1	20
	Las Marias .....	...	2	9	11	...	...	...	...	...	...	11
	Mayaguez .....	...	28	20	48	1	1	2	...	...	4	52
	District	1	38	39	78	1	1	3	...	...	5	83
12	Aguada .....	...	4	6	10	...	...	...	...	...	...	10
	Aguadilla	1	13	18	32	...	...	1	...	...	1	33
	San Sebastian	1	4	12	17	...	...	1	...	...	1	18
	District	2	21	36	59	...	...	2	...	...	2	61
13	Camuy .....	...	12	14	26	...	...	...	1	...	1	27
	Isabela .....	...	4	10	14	...	...	...	...	...	...	14
	District .....	...	16	24	40	...	...	...	1	...	1	41
14	Arecibo .....	...	19	26	45	...	1	...	...	...	1	46
	Lares	1	4	11	16	...	...	1	...	...	1	17
	District	1	23	37	61	...	1	1	...	...	2	63
15	Adjuntas	1	6	9	16	...	...	...	...	...	...	16
	Utuado	1	9	19	29	...	...	1	1	...	2	31
	District	2	15	28	45	...	...	1	1	...	2	47
16	Ciales .....	...	5	11	16	...	...	...	...	...	...	16
	Manatí .....	...	11	12	23	...	...	1	...	...	1	24
	Morovis .....	...	3	7	10	...	...	...	...	...	...	10
	District .....	...	19	30	49	...	...	1	...	...	1	50
17	Toa Alta .....	...	10	10	20	...	...	...	1	...	1	21
	Vega Baja	1	8	11	20	...	...	...	...	...	...	20
	District	1	18	21	40	...	...	...	1	...	1	41
18	Bayamón	2	20	37	59	...	...	...	...	...	1	60
	Vieques .....	...	5	6	11	...	...	...	...	...	...	11
	Total	30	467	563	1,060	3	4	26	14	6	53	1,113

TABLE IX.—*Number of buildings in use for schools, by municipalities, by school districts, classified as town, rural, and agricultural schools.*

(First term, 1903-4.)

School district.	Municipality.	Town.	Rural.	Agricultural.	Total.	School district.	Municipality.	Town.	Rural.	Agricultural.	Total.
1	Carolina	3	14	1	18	10	Cabo Rojo	2	11	1	14
	Rio Piedras	2	8		10		Maricao	1	4		5
	San Juan	9	3		12		San Germán	2	13		15
	District	14	25	1	40		District	5	28	1	34
2	Fajardo	6	8		14	11	Añasco	4	9		13
	Naguabo	2	6		8		Las Marias	1	9		10
	Rio Grande	2	16		18		Mayaguez	4	20		24
	District	10	30		40		District	9	38		47
3	Humacao	4	8	1	13	12	Aguada	1	6		7
	San Lorenzo	2	11	1	14		Aguadilla	3	17		20
	Yabucoa	2	8		10		San Sebastian	2	12		14
	District	8	27	2	37		- District	6	35		41
4	Aguas Buenas	1	5		6	13	Camuy	6	12	1	19
	Caguas	5	12		17		Isabela	2	10		12
	Cayey	4	12		16		District	8	22	1	31
	District	10	29		39		District	3	25		28
5	Guayama	7	12	1	20	14	Lares	3	11		14
	Patillas	1	7		8		District	6	36		42
	District	8	19	1	28		Adjuntas	3	9		12
	Aibonito	2	7		9	15	Utua	3	15	1	19
6	Barros	1	12	2	15		District	6	24	1	31
	Comerio	1	8		9		Ciales	1	11		12
	District	4	27	2	33		Manatí	4	11		15
7	Coamo	3	16		19	16	Morovis	1	7		8
	Juana Diaz	2	12		14		District	6	29		35
	Santa Isabel	2	4		6		Toa Alta	3	10	1	14
	District	7	32		39	17	Vega Baja	2	11		13
8	Ponce	11	38	1	50		District	5	21	1	27
	Lajas	1	8	1	10	18	Bayamón	8	30	1	39
	Sabana Grande	3	8	1	12		Vieques	1	5		6
	Yauco	4	14		18		Total	140	525	14	679
9	District	8	30	2	40						

TABLE IX.—*Number of buildings in use for schools, by municipalities, by school districts, classified as town, rural, and agricultural schools—Continued.*

(Second Term, 1903-4.)

School district.	Municipality.	Town.	Rural.	Agricultural.	Total.	School district.	Municipality.	Town.	Rural.	Agricultural.	Total.
1	Carolina	2	14	1	17	10	Cabo Rojo	2	11	1	14
	Rio Piedras	2	8		10		Maricao	1	4		5
	San Juan	8	3		11		San Germán	2	14		16
	District	12	25	1	38		District	5	29	1	35
2	Fajardo	6	8		14	11	Añasco	4	10		14
	Naguabo	1	6		7		Las Marias	1	9		10
	Rio Grande	2	15		17		Mayaguez	4	20		24
	District	9	29		38		District	9	39		48
3	Humacao	4	8	1	13	12	Aguada	1	6		7
	San Lorenzo	2	11	1	14		Aguadilla	3	17		20
	Yabucoa	2	8		10		San Sebastian	2	12		14
	District	8	27	2	37		District	6	35		41
4	Aguas Buenas	1	4		5	13	Camuy	7	12	1	20
	Caguas	5	12		17		Isabela	1	10		11
	Cayey	4	12		16		District	8	22	1	31
	District	10	28		38		Arecibo	4	25		29
5	Guayama	7	12	1	20	14	Lares	3	11		14
	Patillas	1	7		8		District	7	36		43
	District	8	19	1	28		Adjuntas	2	9		11
	Aibonito	2	7		9	15	Utua	3	19	1	23
6	Barrios	1	14	2	17		District	5	28	1	34
	Comerio	1	8		9		Ciales	1	11		12
	District	4	29	2	35		Manatí	4	12		16
7	Coamo	3	16		19	16	Morovis	1	7		8
	Juana Díaz	2	12		14		District	6	30		36
	Santa Isabel	2	3		5		Toa Alta	3	10	1	14
	District	7	31		38		Vega Baja	2	11		13
8	Ponce	13	39	1	53	17	District	5	21	1	27
	Lajas	1	8	1	10	18	Bayamón	8	29	1	38
	Sabana Grande	2	8	1	11		Vieques	1	4		5
	Yauco	3	15		18		Total	137	531	14	682
9	District	6	31	2	39						

TABLE IX.—Number of buildings in use for schools, by municipalities, by school districts, classified as town, rural, and agricultural schools—Continued.

(Third term, 1903-4.)

School district.	Municipality.	Town.	Rural.	Agricultural.	Total.	School district.	Municipality.	Town.	Rural.	Agricultural.	Total.
1	Carolina	3	14	1	18	10	Cabo Rojo	2	11	1	14
	Rio Piedras	2	8		10		Maricao	1	4		5
	San Juan	8	3		11		San Germán	2	12		14
	District	13	25	1	39		District	5	27	1	33
2	Fajardo	6	8		14	11	Añasco	4	10		14
	Naguabo	1	6		7		Las Marias	1	9		10
	Rio Grande	2	15		17		Mayaguez	5	20		25
	District	9	29		38		District	10	39		49
3	Humacao	4	8	1	13	12	Aguada	1	6		7
	San Lorenzo	2	11	1	14		Aguadilla	3	17		20
	Yabucoa	2	8		10		San Sebastian	2	12		14
	District	8	27	2	37		District	6	35		41
4	Aguas Buenas	1	4		5	13	Camuy	5	12	1	18
	Caguas	5	12		17		Isabela	1	10		11
	Cayey	4	12		16		District	6	22	1	29
	District	10	28		38		District	4	25		29
5	Guayama	7	12	1	20	14	Lares	3	11		14
	Patillas	1	7		8		District	7	36		43
	District	8	19	1	28		Adjuntas	2	9		11
	Aibonito	2	6		8		Utua	3	19	1	23
6	Barros	1	14	2	17	15	District	5	28	1	34
	Comerio	1	8		9		Ciales	1	11		12
	District	4	28	2	34		Manati	4	12		16
	Coamo	3	15		18		Morovis	1	7		8
7	Juana Diaz	2	12		14	16	District	6	30		36
	Santa Isabel	2	3		5		Toa Alto	3	10	1	14
	District	7	30		37		Vega Baja	2	11		13
	Ponce	13	40	1	54		District	5	21	1	27
8	Lajas	1	8	1	10	17	Bayamón	7	30	1	38
	Sabana Grande	2	7	1	10		Vieques	1	3		4
	Yauco	3	14		17		Total	136	526	14	676
	District	6	29	2	37						

TABLE X.—*Private schools, distribution (pupils) by sex, color, and age.*

(First term, 1903-4.)

School district.	Municipality.	White.		Colored.		Total males.	Total females.	Total white.	Total colored.	Total enrollment.
		Males.	Females.	Males.	Females.					
1	Carolina	18	10	5	4	23	14	28	9	37
	Rio Piedras	47	7	.....	7	.....	54	47	7	54
	San Juan	230	378	152	151	382	529	608	303	911
	District	248	435	157	162	405	597	683	319	1,002
2	Fajardo	23	39	12	23	35	62	62	35	97
3	Humacao	7	4	.....	.....	7	4	11	.....	11
	Yabucoa .....	.....	.....	.....	14	.....	24	10	14	24
	District	7	14	.....	14	7	28	21	14	35
4	Caguas	28	39	8	13	36	52	67	21	88
	Cayey	11	24	12	6	23	30	35	18	53
	District	39	63	20	19	59	82	102	39	141

5	Guayama	24	51	13	27	37	78	75	40	115
7	Coamo	16	79	.....	6	16	85	95	6	101
8	Ponce	109	269	16	74	125	343	378	90	468
9	Sabana Grande	4	15	4	5	8	20	19	9	28
	Yauco	16	31	2	2	18	33	47	4	51
	District	20	46	6	7	26	53	66	13	79
10	Maricao	15	7	.....	.....	15	7	22	.....	22
	San German	45	185	12	18	57	203	230	30	260
	District	60	192	12	18	72	210	252	30	282
11	Añasco	17	45	4	7	21	52	62	11	73
	Mayaguez	145	270	11	36	156	306	415	47	462
	District	162	315	15	43	177	358	477	58	535
14	Lares	58	75	9	4	67	79	133	13	146
15	Utuado	16	15	.....	.....	16	15	31	.....	31
16	Manatí	23	68	2	26	25	94	91	28	119
18	Bayamón	57	117	34	85	91	202	174	119	293
	Vieques	19	8	3	.....	22	8	27	3	35
Total		881	1,786	299	508	1,180	2,294	2,667	807	3,474

TABLE X.—*Private schools, distribution (pupils) by sex, color, and age—Continued.*

(First term, 1903-4.)

School district.	Municipality.	Age.						Total enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
1	Carolina	1	8	18	8	2	.....	37
	Rio Piedras	3	15	13	11	12	.....	54
	San Juan	14	375	254	209	55	4	911
	District	18	598	285	228	69	4	1,002
2	Fajardo	6	42	33	16	.....	.....	97
3	Humacao	1	4	2	2	2	.....	11
	Yabucoa	4	6	6	8	.....	.....	24
	District	5	10	8	10	2	.....	35
4	Caguas	13	33	32	10	.....	.....	88
	Cayey	7	20	20	5	1	.....	53
	District	20	53	52	15	1	.....	141
5	Guayama	21	59	17	18	.....	.....	115
7	Coamo	8	34	27	15	17	.....	101
8	Ponce	15	64	145	132	83	29	468
9	Sabana Grande	3	16	7	2	.....	.....	28
	Yauco	3	25	13	10	.....	.....	51
	District	6	41	20	12	.....	.....	79
10	Maricao .....	.....	8	7	3	3	1	22
	San German	50	98	84	20	8	.....	260
	District	50	106	91	23	11	1	282
11	Añasco .....	.....	20	20	17	12	4	73
	Mayaguez	19	118	129	124	44	28	462
	District	19	138	149	141	56	32	535
14	Lares	1	47	47	41	10	.....	146
15	Utuado	4	11	9	7	.....	.....	31
16	Manati .....	.....	30	34	51	4	.....	119
18	Bayamón	10	77	85	77	40	4	293
	Vieques .....	.....	9	14	7	.....	.....	30
	Total	183	1,119	1,016	793	293	70	3,474

TABLE X.—*Private schools, distribution (pupils) by sex, color, and age—Continued.*

(Second term, 1903-4.)

School district.	Municipality.	White.		Colored.		Total males.	Total females.	Total white.	Total colored.	Total enrollment.
		Males.	Fe-males.	Males.	Fe-males.					
1	Carolina	16	6	7	5	23	11	22	12	34
	Rio Piedras	85	12	175	189	524	97	85	12	97
	San Juan	349	681				870	1,030	364	1,394
	District	365	772	182	206	547	978	1,137	388	1,525
2	Fajardo	27	41	13	26	40	67	68	39	107
	Rio Grande	3	7	27	19	30	26	10	46	56
	District	30	48	40	45	70	93	78	85	163
3	Humacao	6	5	2	2	8	7	11	4	15
	Yabucoa		10		14		24	10	14	24
	District	6	15	2	16	8	31	21	18	39
4	Caguas	25	35	8	18	33	53	60	26	86
	Cayey	8	27	14	11	22	38	35	25	60
	District	33	62	22	29	55	91	95	51	146
5	Guayama	25	51	18	27	43	78	76	45	121
7	Coamo	19	159		55	19	214	178	55	233
8	Ponce	108	282	41	102	149	384	390	143	533
9	Sabana Grande	5	13	5	6	10	19	18	11	29
	Yauco	23	37	3	3	26	40	60	6	66
	District	28	50	8	9	36	59	78	17	95
10	Maricao	8	9		8		9	17		17
	San Germán	50	180	12	18	62	198	230	30	260
	District	58	189	12	18	70	207	247	30	277
11	Añasco	34	85	6	11	40	96	119	17	136
	Mayaguez	160	503	21	48	181	551	663	69	732
	District	194	588	27	59	221	647	782	86	868
12	Aguadilla	35	50	15	20	50	70	85	35	120
14	Arecibo	13	35	2	1	15	36	48	3	51
	Lares	57	70	9	5	63	75	127	14	141
	District	70	105	11	6	81	111	175	17	192
15	Utua	13	10			13	10	23		23
16	Manatí	30	77	3	34	33	111	107	37	144
18	Bayamón	64	158	54	62	118	220	222	116	338
	Vieques	15	6	2	1	17	7	21	3	24
	Total	1,093	2,622	437	689	1,530	3,311	3,715	1,126	4,841

TABLE X.—*Private schools, distribution (pupils) by sex, color, and age—Continued.*

(Second term, 1903-4.)

School district.	Municipality.	Years.						Total enrollment.
		Under 5.	5, 6, and 7.	8, 9, and 10.	11, 12, and 13.	14 to 18.	Over 18.	
2	Carolina	2	7	14	8	3	.....	34
	Rio Piedras	4	18	31	30	14	.....	97
	San Juan	48	465	435	314	122	10	1,394
	District	54	490	480	352	139	10	1,525
	Fajardo	8	56	33	10	.....	.....	107
	Rio Grande .....	.....	10	29	16	1	.....	56
	District	8	66	62	26	1	.....	163
	Humacao .....	.....	10	5	.....	.....	.....	15
	Yabucoa .....	.....	10	6	8	.....	.....	24
	District .....	.....	20	11	8	.....	.....	39
4	Caguas	3	48	30	5	.....	.....	86
	Cayey	11	30	13	3	3	.....	60
	District	14	78	43	8	3	.....	146
5	Guayama	4	66	31	20	.....	.....	121
7	Coamo .....	.....	58	75	42	58	.....	233
8	Ponce	31	83	168	167	75	9	533
9	Sabana Grande	3	18	6	2	.....	.....	29
	Yauco	4	43	12	7	.....	.....	66
	District	7	61	18	9	.....	.....	95
10	Maricao .....	.....	2	6	4	.....	1	17
	San Germán	60	98	74	20	4	.....	260
	District	60	100	80	24	12	1	277
11	Añasco	1	40	36	29	22	8	136
	Mayaguez	42	225	221	168	70	6	732
	District	43	265	257	197	92	14	868
12	Aguadilla .....	.....	18	38	44	20	.....	120
14	Arecibo	6	33	6	1	5	.....	51
	Lares	2	40	42	38	19	.....	141
	District	8	73	48	39	24	.....	192
15	Utuaado .....	.....	6	12	5	.....	.....	23
16	Manatí	3	33	47	57	4	.....	144
18	Bayamón	2	88	92	87	64	5	338
	Vieques .....	.....	12	9	3	.....	.....	24
	Total	234	1,517	1,471	1,088	492	39	4,841

TABLE XI.—*Enrollment, reenrollments, and number of different pupils enrolled during the school year, common schools and special schools.*

School district.	Municipality.	Enrollment during school year.							Reenrollments during school year.								
		Graded.	Rural.	High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total.	Graded.	Rural.	High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total.
1	Carolina.....	430	936	.....	.....	.....	53	.....	1,419	46	7	.....	.....	.....	.....	.....	53
	Rio Piedras.....	384	474	.....	.....	.....	.....	.....	858	27	13	.....	.....	.....	.....	.....	40
	San Juan.....	2,843	413	61	159	245	.....	131	3,852	86	7	.....	.....	.....	.....	.....	93
	District.....	3,657	1,823	61	159	245	53	131	6,129	159	27	.....	.....	.....	.....	.....	186
2	Fajardo.....	930	489	.....	.....	76	.....	.....	1,495	33	4	.....	.....	.....	.....	.....	37
	Naguabo.....	232	344	.....	.....	.....	.....	.....	576	39	28	.....	.....	.....	.....	.....	67
	Rio Grande.....	582	1,102	.....	.....	74	.....	.....	1,758	34	54	.....	.....	.....	.....	.....	88
	District.....	1,744	1,935	.....	.....	150	.....	.....	3,829	106	86	.....	.....	.....	.....	.....	192
3	Humacao.....	730	411	.....	.....	63	132	.....	1,336	16	.....	.....	.....	.....	.....	.....	16
	San Lorenzo.....	609	614	.....	.....	73	45	.....	1,341	7	8	.....	.....	.....	.....	.....	15
	Yabucoa.....	357	395	.....	.....	.....	.....	.....	752	34	.....	.....	.....	.....	.....	.....	34
	District.....	1,696	1,420	.....	.....	136	177	.....	3,429	57	8	.....	.....	.....	.....	.....	65
4	Agua Buena.....	101	295	.....	.....	.....	.....	.....	396	43	10	.....	.....	.....	.....	.....	53
	Caguas.....	925	866	.....	.....	.....	.....	.....	1,791	81	20	.....	.....	.....	.....	.....	101
	Cayey.....	731	776	.....	.....	88	.....	.....	1,595	108	34	.....	.....	.....	.....	.....	142
	District.....	1,757	1,937	.....	.....	88	.....	.....	3,782	232	64	.....	.....	.....	.....	.....	296
5	Guayama.....	1,086	727	.....	.....	88	51	.....	1,952	44	22	.....	.....	.....	2	.....	68
	Patillas.....	133	317	.....	.....	.....	.....	.....	450	15	2	.....	.....	.....	.....	.....	17
	District.....	1,219	1,044	.....	.....	88	51	.....	2,402	59	24	.....	.....	.....	2	.....	85
6	Aibonito.....	403	394	.....	.....	.....	.....	.....	797	50	1	.....	.....	.....	.....	.....	51
	Barros.....	239	850	.....	.....	.....	88	.....	1,177	3	23	.....	.....	.....	.....	.....	26
	Comerio.....	205	376	.....	.....	.....	.....	.....	581	11	.....	.....	.....	.....	.....	.....	11
	District.....	847	1,620	.....	.....	.....	88	.....	2,555	64	24	.....	.....	.....	.....	.....	88
7	Coamo.....	528	957	.....	.....	50	.....	.....	1,535	61	14	.....	.....	.....	.....	.....	75
	Juana Diaz.....	367	776	.....	.....	83	.....	.....	1,226	5	8	.....	.....	.....	.....	.....	13
	Santa Isabel.....	287	240	.....	.....	.....	.....	.....	527	67	.....	.....	.....	.....	.....	.....	67
	District.....	1,182	1,973	.....	.....	133	.....	.....	3,288	133	22	.....	.....	.....	.....	.....	155
8	Ponce.....	1,910	2,369	29	116	271	34	64	4,793	84	42	.....	.....	13	.....	.....	139
9	Lajas.....	113	477	.....	.....	.....	59	.....	649	.....	.....	.....	.....	.....	.....	.....	.....
	Sabana Grande.....	369	415	.....	.....	.....	54	.....	838	7	8	.....	.....	.....	1	.....	16
	Yauco.....	782	816	.....	.....	.....	.....	.....	1,598	.....	.....	.....	.....	.....	.....	.....	.....
10	District.....	1,264	1,708	.....	.....	.....	113	.....	3,058	7	8	.....	.....	.....	1	.....	16
	Cabo Rojo.....	459	673	.....	.....	.....	76	.....	1,208	61	3	.....	.....	.....	1	.....	65
	Maricao.....	229	224	.....	.....	.....	.....	.....	453	20	.....	.....	.....	.....	.....	.....	20
	San Germán.....	602	756	.....	.....	88	.....	.....	1,446	11	8	.....	.....	.....	.....	.....	19
11	District.....	1,290	1,653	.....	.....	88	76	.....	3,107	92	11	.....	.....	.....	1	.....	104
	Añasco.....	468	550	.....	.....	66	.....	.....	1,084	1	2	.....	.....	.....	.....	.....	3
	Las Marias.....	133	489	.....	.....	.....	.....	.....	622	.....	17	.....	.....	.....	.....	.....	17
	Mayaguez.....	1,647	1,334	22	187	108	.....	.....	3,298	81	8	.....	.....	.....	.....	.....	89
12	District.....	2,248	2,373	22	187	174	.....	.....	5,004	82	27	.....	.....	.....	.....	.....	109
	Aguada.....	199	300	.....	.....	.....	.....	.....	499	24	5	.....	.....	.....	.....	.....	29
	Aguadilla.....	767	1,115	.....	.....	80	.....	.....	1,962	76	26	.....	.....	.....	.....	.....	102
	San Sebastian.....	343	724	.....	.....	54	.....	.....	1,121	18	3	.....	.....	.....	.....	.....	21
13	District.....	1,309	2,139	.....	.....	134	.....	.....	3,582	118	34	.....	.....	.....	.....	.....	152
	Camuy.....	792	642	.....	.....	.....	44	.....	1,478	29	4	.....	.....	.....	.....	.....	33
	Isabela.....	302	674	.....	.....	.....	.....	.....	976	.....	.....	.....	.....	.....	.....	.....	.....
13	District.....	1,094	1,316	.....	.....	.....	44	.....	2,454	29	4	.....	.....	.....	.....	.....	33

TABLE XI.—*Enrollment, reenrollments, and number of different pupils enrolled during the school year, common schools and special schools—Continued.*

School district.	Municipality.	Enrollment during school year.							Reenrollments during school year.								
		Graded.	Rural.	High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total.	Graded.	Rural.	High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total.
14	Arecibo	1,008	1,429	....	142	....	....	....	2,579	56	63	....	....	....	....	....	119
	Lares	345	650	....	....	88	....	....	1,083	18	....	....	....	....	....	....	18
	District.....	1,353	2,079	....	142	88	....	....	3,662	74	63	....	....	....	....	....	137
15	Adjuntas	424	476	....	....	....	....	....	900	41	3	....	....	....	....	....	44
	Utuado	637	1,135	....	....	77	70	....	1,919	109	52	....	....	....	....	....	161
	District.....	1,061	1,611	....	....	77	70	....	2,819	150	55	....	....	....	....	....	205
16	Ciales	346	766	....	....	....	....	....	1,112	8	....	....	....	....	....	....	8
	Manati	686	828	....	....	74	....	....	1,588	2	....	....	....	....	....	....	2
	Morovis	142	447	....	....	....	....	....	589	63	....	....	....	....	....	....	63
	District.....	1,174	2,041	....	....	74	....	....	3,289	73	....	....	....	....	....	....	73
17	Toa Alta	656	596	....	....	....	76	....	1,328	17	13	....	....	....	8	....	38
	Vega Baja	614	588	....	....	....	....	....	1,202	48	11	....	....	....	....	....	59
	District.....	1,270	1,184	....	....	....	76	....	2,530	65	24	....	....	....	8	....	97
18	Bayamón	1,122	1,960	....	....	....	71	....	3,153	143	75	....	....	....	....	....	218
	Vieques	383	281	....	....	....	....	....	664	2	36	....	....	....	....	....	38
	Total	27,580	32,466	112	604	1,746	853	195	63,556	1,729	634	....	....	13	12	....	2,388

School district.	Municipality.	Total number of different pupils enrolled during the school year, excluding reenrollments.							
		Graded.	Rural.	High.	Industrial.	Night.	Agricultural.	Kindergarten.	Total.
1	Carolina	384	929	....	....	....	53	....	1,366
	Rio Piedras	357	461	....	....	....	....	....	818
	San Juan	2,757	406	61	159	245	....	131	3,759
	District.....	3,498	1,796	61	159	245	53	131	5,943
2	Fajardo	897	485	....	....	76	....	....	1,458
	Naguabo	193	316	....	....	....	....	....	509
	Rio Grande	548	1,048	....	....	74	....	....	1,670
	District.....	1,638	1,849	....	....	150	....	....	3,637
3	Humacao	714	411	....	....	63	132	....	1,320
	San Lorenzo	602	606	....	....	73	45	....	1,326
	Yabucoa	323	395	....	....	....	....	....	718
	District.....	1,639	1,412	....	....	136	177	....	3,364
4	Aguas Buenas	58	285	....	....	....	....	....	343
	Caguas	844	846	....	....	....	....	....	1,690
	Cayey	623	742	....	....	88	....	....	1,453
	District.....	1,525	1,873	....	....	88	....	....	3,486
5	Guayama	1,042	705	....	....	88	49	....	1,884
	Patillas	118	315	....	....	....	....	....	433
	District.....	1,160	1,020	....	....	88	49	....	2,317
6	Aibonito	353	393	....	....	....	....	....	746
	Barros	236	827	....	....	....	88	....	1,151
	Comerio	194	376	....	....	....	....	....	570
	District.....	783	1,596	....	....	....	88	....	2,467

TABLE XI.—*Enrollment, reenrollments, and number of different pupils enrolled during the school year, common schools and special schools—Continued.*

School district.	Municipality.	Total number of different pupils enrolled during the school year, excluding reenrollments.							Total.
		Graded.	Rural.	High.	Industrial.	Night.	Agricultural.	Kindergarten.	
7	Coamo.....	467	943	.....	.....	50	.....	.....	1,460
	Juana Diaz.....	362	768	.....	.....	83	.....	.....	1,213
	Santa Isabel.....	220	240	.....	.....	.....	.....	.....	460
	District.....	1,049	1,951	.....	.....	133	.....	.....	3,133
8	Ponce.....	1,826	2,327	29	116	258	34	64	4,654
9	Lajas.....	113	447	.....	.....	.....	59	.....	649
	Sabana Grande.....	362	407	.....	.....	.....	53	.....	822
	Yauco.....	782	816	.....	.....	.....	.....	.....	1,598
	District.....	1,257	1,700	.....	.....	.....	112	.....	3,069
10	Cabo Rojo.....	398	670	.....	.....	.....	75	.....	1,143
	Maricao.....	209	224	.....	.....	.....	.....	.....	433
	San Germán.....	591	748	.....	.....	88	.....	.....	1,427
	District.....	1,198	1,642	.....	.....	88	75	.....	3,003
11	Añasco.....	467	548	.....	.....	66	.....	.....	1,081
	Las Marias.....	133	472	.....	.....	.....	.....	.....	605
	Mayaguez.....	1,566	1,326	22	187	108	.....	.....	3,209
	District.....	2,166	2,346	22	187	174	.....	.....	4,895
12	Aguada.....	175	295	.....	.....	.....	.....	.....	470
	Aguadilla.....	691	1,089	.....	.....	80	.....	.....	1,860
	San Sebastián.....	325	721	.....	.....	54	.....	.....	1,100
	District.....	1,191	2,105	.....	.....	134	.....	.....	3,430
13	Camuy.....	763	638	.....	.....	.....	44	.....	1,445
	Isabela.....	302	674	.....	.....	.....	.....	.....	976
	District.....	1,065	1,312	.....	.....	.....	44	.....	2,421
14	Arecibo.....	952	1,366	.....	142	.....	.....	.....	2,460
	Lares.....	327	650	.....	.....	88	.....	.....	1,065
	District.....	1,279	2,016	.....	142	88	.....	.....	3,525
15	Adjuntas.....	383	473	.....	.....	.....	.....	.....	856
	Utuado.....	528	1,083	.....	.....	77	70	.....	1,758
	District.....	911	1,556	.....	.....	77	70	.....	2,614
16	Ciales.....	338	766	.....	.....	.....	.....	.....	1,104
	Manatí.....	684	828	.....	.....	74	.....	.....	1,586
	Morovis.....	79	447	.....	.....	.....	.....	.....	526
	District.....	1,101	2,041	.....	.....	74	.....	.....	3,216
17	Toa Alta.....	639	583	.....	.....	.....	68	.....	1,290
	Vega Baja.....	566	577	.....	.....	.....	.....	.....	1,143
	District.....	1,205	1,160	.....	.....	.....	68	.....	2,433
18	Bayamón.....	979	1,885	.....	.....	.....	71	.....	2,935
	Vieques.....	381	245	.....	.....	.....	.....	.....	626
	District.....	1,360	2,130	.....	.....	.....	.....	.....	3,490
	Total.....	25,851	31,832	112	604	1,733	841	195	61,168

TABLE XII.—Average daily per cent of attendance for each of the school terms and for the year, also per cent of the estimated school population enrolled in the schools during the year, common schools and special schools.

School district.	Municipality.	First term.	Second term.	Third term.	School year.	Per cent estimated school population enrolled during year, all schools.
COMMON SCHOOLS.						
1	Carolina	79.03	77.44	77.25	66.34	18.90
	Rio Piedras	77.21	75.23	75.56	61.77	15.51
	San Juan	76.37	87.04	82.31	65.44	34.83
	District	77.03	82.82	79.85	65.01	25.81
2	Fajardo	84.05	83.21	86.45	71.80	20.85
	Naguabo	82.33	83.45	82.51	69.71	11.86
	Rio Grande	80.02	83.71	86.85	71.42	16.49
	District	81.82	83.31	86.33	71.29	16.87
3	Humacao	76.42	74.07	76.71	63.20	14.55
	San Lorenzo	80.93	74.13	72.11	56.68	14.46
	Yabucoa	88.58	84.85	84.37	89.92	9.35
	District	82.24	76.77	77.55	67.34	12.98
4	Aguas Buenas	74.38	76.48	85.21	63.11	11.32
	Caguas	78.51	78.57	79.11	62.13	15.05
	Cayey	82.21	76.20	81.18	60.72	17.66
	District	79.54	77.38	80.68	62.29	15.58
5	Guayama	78.66	79.26	78.03	67.10	20.42
	Patillas	72.03	73.75	76.45	64.80	9.59
	District	75.97	78.12	77.21	66.71	16.86
6	Aibonito	80.23	79.47	80.38	61.86	21.50
	Barros	89.96	76.74	83.38	75.43	11.78
	Comerio	81.84	86.31	87.12	79.63	16.01
	District	86.10	85.80	84.31	71.99	14.75
7	Coamo	78.25	77.32	86.88	70.84	23.41
	Juana Diaz	78.87	78.53	82.91	69.73	10.56
	Santa Isabel	89.62	69.40	79.74	60.92	26.52
	District	80.30	76.62	84.43	69.00	11.35
8	Ponce	85.71	85.27	85.63	73.29	14.77
9	Lajas	83.16	76.43	81.81	70.22	17.73
	Sabana Grande	92.22	88.02	90.97	85.20	18.77
	Yauco	78.33	83.31	86.18	72.03	14.36
	District	83.49	83.38	85.56	74.37	15.96
10	Cabo Rojo	74.10	75.11	82.73	61.06	18.36
	Maricao	56.94	71.62	66.79	50.00	13.74
	San Germán	76.76	75.91	78.24	66.20	18.23
	District	73.65	74.95	81.27	61.75	17.85
11	Añasco	75.74	73.07	78.42	66.87	13.15
	Las Marias	57.16	64.76	75.94	46.35	13.45
	Mayaguez	69.12	73.91	83.51	53.77	22.63
	District	69.86	72.35	81.61	55.63	18.23
12	Aguada	61.32	63.02	62.14	57.13	11.57
	Agüadilla	68.31	62.81	60.45	60.90	15.84
	San Sebastián	63.70	63.62	60.85	57.43	16.28
	District	66.83	63.47	60.80	59.14	15.21

TABLE XII.—Average daily per cent of attendance for each of the school terms and for the year, also per cent of the estimated school population enrolled in the schools during the year, common schools and special schools—Continued.

School district.	Municipality.	First term.	Second term.	Third term.	School year.	Per cent estimated school population enrolled during year, all schools.
COMMON SCHOOLS—continued.						
13	Camuy	80.91	76.03	82.13	72.73	12.23
	Isabela	74.40	78.88	80.57	69.31	16.28
	District	78.12	77.05	81.57	68.26	13.52
14	Arecibo	82.08	78.30	77.28	68.60	17.36
	Lares	64.80	74.61	77.79	56.37	11.47
	District	77.14	77.32	77.10	64.96	15.67
15	Adjuntas	76.58	76.99	69.83	62.82	10.74
	Utuado	66.54	74.74	69.77	58.08	10.31
	District	70.18	75.58	69.81	59.70	10.45
16	Ciales	61.87	70.96	77.30	50.53	13.92
	Manati	76.09	77.02	80.65	65.35	16.25
	Morovis	74.98	79.78	76.65	63.92	11.87
	District	72.54	75.60	78.75	60.11	14.07
17	Toa Alta	70.39	75.30	79.61	61.26	12.87
	Vega Baja	76.43	74.31	79.01	65.00	17.06
	District	73.88	75.03	79.17	63.81	14.58
18	Bayamón	71.22	75.32	76.66	64.21	23.61
	Vieques	73.61	77.29	81.83	60.42	26.51
	Total	77.85	77.42	80.32	65.29	16.14
SPECIAL SCHOOLS.						
	High schools	86.75	90.60	90.07	77.23	.....
	Industrial schools	73.38	73.28	80.02	59.51	.....
	Night schools	66.39	59.50	60.99	45.39	.....
	Agricultural schools	72.57	75.80	78.44	59.48	.....
	Kindergarten schools	83.74	77.29	73.20	75.91	.....
	Total	71.47	68.55	71.36	53.48	.....

TABLE XIII.—*Total and school population, census of 1899; also estimated total and school population, 1904.*

School district.	Municipality.	Total population.		Total population of school age (5 to 18 years).	
		Census of 1899.	Estimated, 1904.	Census of 1899.	Estimated, 1904.
1	Carolina.....	17,648	18,752	6,193	7,509
	Rio Piedras.....	13,760	14,620	4,505	5,462
	San Juan.....	32,048	34,051	8,886	10,774
		63,456	67,423	19,584	23,745
2	Fajardo.....	16,782	17,831	5,914	7,171
	Naguabo.....	10,873	11,553	4,006	4,857
	Rio Grande.....	24,887	26,442	8,790	10,657
		52,542	55,826	18,710	22,685
3	Humacao.....	22,915	24,347	7,572	9,181
	San Lorenzo.....	21,862	23,241	7,649	9,274
	Yabucoa.....	20,126	21,383	6,632	8,042
		64,903	68,971	21,853	26,497
4	Aguas Buenas.....	7,977	8,475	2,813	3,410
	Caguas.....	28,557	30,342	9,763	11,838
	Cayey.....	21,994	23,368	7,444	9,025
		58,528	62,185	20,020	24,273
5	Guayama.....	23,347	24,807	7,877	9,551
	Patillas.....	11,163	11,860	3,848	4,690
		34,510	36,667	11,725	14,241
6	Aibonito.....	8,596	9,133	3,057	3,707
	Barros.....	22,948	24,357	8,235	9,985
	Comerio.....	8,249	8,765	2,991	3,626
		39,793	42,255	14,283	17,318
7	Coamo.....	15,144	16,090	5,407	6,555
	Juana Diaz.....	27,896	29,640	9,567	11,601
	Santa Isabel.....	4,858	5,162	1,640	1,987
		47,898	50,892	16,614	20,143
8	Ponce.....	77,146	81,967	24,218	32,452
9	Lajas.....	8,789	9,338	3,013	3,653
	Sabana Grande.....	10,560	11,220	3,692	4,477
	Yauco.....	27,119	28,789	9,238	11,198
		46,468	49,347	15,943	19,328
10	Cabo Rojo.....	16,154	17,164	5,426	6,580
	Maricao.....	8,312	8,832	2,719	3,296
	San German.....	20,246	21,511	6,540	7,930
		44,712	47,507	14,685	17,806
11	Añasco.....	19,952	21,198	6,798	8,243
	Las Marias.....	11,279	11,984	3,819	4,630
	Mayaguez.....	38,915	41,347	12,018	14,572
		70,146	74,529	22,635	27,445
12	Aguada.....	10,581	11,242	3,527	4,277
	Aguadilla.....	30,240	32,130	10,215	12,385
	San Sebastian.....	16,412	17,438	5,678	6,884
		57,233	60,810	19,420	23,546
13	Camuy.....	8,768	9,562	9,961	12,078
	Isabela.....	14,888	15,818	4,942	5,992
		43,656	46,380	14,903	18,070
14	Arecibo.....	6,910	39,217	12,207	14,801
	Lares.....	20,883	22,188	7,067	8,569
		57,793	61,405	19,274	23,370
15	Adjuntas.....	19,484	20,701	6,911	8,380
	Utua.....	13,860	46,601	15,530	18,610
		63,344	67,302	22,441	26,990
16	Ciales.....	18,115	19,247	6,588	7,988
	Manatí.....	3,346	24,805	8,007	9,708
	Morovis.....	11,309	12,015	4,095	4,965
		52,770	56,067	18,690	22,661
17	Toa Alta.....	23,220	24,671	8,507	10,314
	Vega Baja.....	16,412	17,438	5,809	7,044
		39,632	42,109	14,316	17,358
18	Bayamón.....	32,071	34,076	11,013	13,353
	Vieques.....	6,642	7,057	2,066	2,505
		953,243	1,012,775	322,393	393,786
Total.....					

TABLE XIV.—*Bimonthly expenses incurred by the local school boards during the fiscal year ending June 30, 1904; also indebtedness of each local school board in the several municipalities at the close of the fiscal year by municipalities, school districts, and totals for the island.*

EXPENSES OF LOCAL SCHOOL BOARDS.

School district.	Municipality.	July and August, 1903.				Total district.
		Rent of school-houses.	Teachers' house rent.	Incidentals.	Total municipality.	
1	Carolina	\$210.00	\$210.00	\$3,134.80
	Rio Piedras	74.00	.....	\$152.74	226.74
	San Juan	1,880.00	.....	818.06	2,698.06
2	Fajardo	140.95	140.95	524.35
	Naguabo	124.00	.....	.....	124.00
	Rio Grande	240.00	.....	19.40	259.40
3	Humacao	152.00	55.00	207.00	645.91
	San Lorenzo	158.00	.....	8.75	166.75
	Yabucoa	178.00	.....	94.16	272.16
4	Aguas Buenas	64.00	11.32	75.32	758.83
	Caguas	170.34	.....	261.27	431.61
	Cayey	240.00	.....	11.90	251.90
5	Guayama	276.00	304.55	580.55	678.50
	Patillas	60.00	.....	37.95	97.95
	Aibonito	54.50	30.70	85.20	240.86
6	Barros	125.00	.....	4.66	129.66
	Comerio	24.00	.....	2.00	26.00
7	Coamo	178.28	264.52	442.80	944.76
	Juana Diaz	244.00	.....	78.43	322.43
	Santa Isabel	122.00	.....	57.53	179.53
8	Ponce	1,297.60	326.03	1,623.63	1,623.63
9	Lajas	42.00	7.50	49.50	368.62
	Sabana Grande	68.50	.....	92.85	161.35
	Yauco	120.00	.....	37.77	157.77
10	Cabo Rojo	72.00	87.79	159.79	317.54
	Maricao	72.00	.....	29.75	101.75
	San German .....	.....	.....	56.00	56.00
11	Añasco	201.60	34.00	235.60	909.24
	Las Marias	126.00	.....	47.64	173.64
	Mayaguez	263.00	.....	237.00	500.00
12	Aguada	56.00	8.20	64.20	425.44
	Aguadilla	157.52	.....	90.61	248.13
	San Sebastian	60.00	.....	53.11	113.11
13	Camuy	55.04	55.04	263.49
	Isabela	102.00	.....	106.45	208.45
	Arecibo	377.00	32.02	409.02	538.26
14	Lares	72.00	.....	57.24	129.24
	Adjuntas	146.00	.....	60.34	206.34
15	Utua	260.00	157.04	417.04	623.38
	Ciales	146.00	.....	189.38	335.38
	Manati	218.00	174.18	392.18	823.19
16	Morovis	66.00	\$10.00	19.63	95.63	
	Toa Alta	156.00	.....	17.00	173.00
17	Vega Baja	124.00	30.50	154.50	327.50
	Bayamón	276.50	17.00	202.40	495.90	
	Vieques	74.00	.....	36.16	110.16
Total		9,127.84	27.00	4,599.52	13,754.36

TABLE XIV.—*Bimonthly expenses incurred by the local school boards during the fiscal year ending June 30, 1904; also indebtedness of each local school board in the several municipalities at the close of the fiscal year by municipalities, school districts, and totals for the island—Continued.*

EXPENSES OF LOCAL SCHOOL BOARDS—Continued.

School district.	Municipality.	Rent of school-houses.	September and October, 1903.			
			Teachers' house rent.	Incidentals.	Total municipality.	Total district.
1	{ Carolina	\$210.00	\$149.00	\$37.86	\$396.86	\$7,742.35
	{ Rio Piedras	76.50	105.00	68.87	250.37	
	{ San Juan	1,800.00	748.16	4,546.96	7,095.12	
2	{ Fajardo	55.00	160.00	211.92	426.92	1,397.91
	{ Naguabo	120.00	70.00	204.70	394.70	
	{ Rio Grande	240.00	148.67	187.62	576.29	
3	{ Humacao	100.00	158.00	186.73	444.73	1,150.64
	{ San Lorenzo	158.00	140.00	20.75	318.75	
	{ Yabucoa	178.00	115.00	94.16	387.16	
4	{ Aguas Buenas	62.00	50.00	34.57	146.57	1,771.49
	{ Caguas	214.00	480.00	379.52	1,073.52	
	{ Cayey	236.00	176.00	139.40	551.40	
5	{ Guayama	262.00	277.00	940.98	1,479.98	1,628.98
	{ Patillas	60.00	51.00	38.00	149.00	
6	{ Aibonito	54.00	91.00	4.00	149.00	698.74
	{ Barros	125.00	126.00	72.81	323.81	
	{ Comerio	47.00	77.00	101.93	225.93	
7	{ Coamo	194.53	148.00	318.79	661.32	1,573.80
	{ Juana Díaz	244.00	145.00	166.77	555.77	
	{ Santa Isabel	110.00	74.00	172.71	356.71	
8	{ Ponce	1,297.60	796.20	494.37	2,588.17	2,588.17
9	{ Lajas	99.00	66.00	15.00	180.00	1,066.79
	{ Sabana Grande	102.00	111.00	58.91	271.91	
	{ Yauco	180.00	225.00	209.88	614.88	
10	{ Cabo Rojo	76.00	110.00	111.56	297.56	1,517.43
	{ Maricao	76.00	54.00	56.17	186.17	
	{ San Germán	55.00	177.00	801.70	1,033.70	
11	{ Añasco	187.20	117.00	309.05	613.25	2,024.69
	{ Las Marias	126.00	66.00	33.69	225.69	
	{ Mayaguez	408.50	362.00	415.25	1,185.75	
12	{ Aguada	56.00	68.00	5.55	129.55	1,279.87
	{ Aguadilla	157.52	245.00	504.85	907.37	
	{ San Sebastian	63.00	96.00	83.95	242.95	
13	{ Camuy	65.00	196.00	75.81	336.81	517.81
	{ Isabela	108.00	70.00	3.00	181.00	
14	{ Arecibo	382.00	344.00	316.44	1,042.44	1,251.95
	{ Lares	66.00	93.00	50.51	209.51	
15	{ Adjuntas	155.94	125.00	75.75	356.69	895.02
	{ Utuado	260.00	197.50	80.83	538.33	
16	{ Ciales	146.00	166.00	74.07	386.07	1,258.17
	{ Manatí	228.00	165.00	341.15	734.15	
	{ Morovis	66.00	51.00	20.95	137.95	
17	{ Toa Alta	156.00	150.70	209.63	516.33	909.52
	{ Vega Baja	127.00	133.00	133.19	393.19	
18	{ Bayamón	312.00	339.00	168.75	819.75	258.02
	{ Vieques	81.50	71.12	105.40	258.02	
	Total	9,583.29	8,083.35	12,684.46	30,351.10

TABLE XIV.—*Bimonthly expenses incurred by the local school boards during the fiscal year ending June 30, 1904; also indebtedness of each local school board in the several municipalities at the close of the fiscal year by municipalities, school districts, and totals for the island—Continued.*

EXPENSES OF LOCAL SCHOOL BOARDS—Continued.

School district.	Municipality.	November and December, 1903.				
		Rent of school-houses.	Teachers' house rent.	Incidentals.	Total municipality.	Total district.
1	{Carolina	\$210.00	\$310.00	\$96.24	\$616.24	\$6,130.35
	{Rio Piedras	93.50	220.00	83.81	397.31	
	{San Juan	1,840.00	1,530.00	1,746.80	5,116.80	
2	{Fajardo	110.00	320.00	323.24	753.24	1,898.16
	{Naguabo	120.00	140.00	163.50	423.50	
	{Rio Grande	218.00	351.00	152.42	721.42	
3	{Humacao	100.00	324.00	200.26	624.26	1,771.29
	{San Lorenzo	158.00	280.00	206.87	644.87	
	{Yabucoa	178.00	230.00	94.16	502.16	
4	{Aguas Buenas	62.00	100.00	10.00	172.00	2,056.65
	{Caguas	214.00	472.00	409.67	1,095.67	
	{Cayey	236.00	378.00	174.98	788.98	
5	{Guayama	282.00	584.00	711.42	1,577.42	1,761.13
	{Patillas	60.00	102.00	21.71	183.71	
6	{Aibonito	69.00	182.00	128.80	379.80	1,156.73
	{Barros	125.00	288.00	88.43	501.43	
	{Comerio	78.00	148.00	49.50	275.50	
7	{Coamo	211.20	296.00	239.70	746.90	2,192.14
	{Juana Diaz	244.00	290.00	492.99	1,026.99	
	{Santa Isabel	137.00	148.00	133.25	418.25	
8	{Ponce	1,291.60	1,599.90	690.58	3,582.08	3,582.08
9	{Lajas	102.00	157.00	43.35	302.35	1,575.66
	{Sabana Grande	118.00	222.00	38.47	378.47	
	{Yauco	252.00	457.00	185.84	894.84	
10	{Cabo Rojo	80.00	220.00	243.83	543.83	1,587.38
	{Maricao	80.00	108.00	61.55	249.55	
	{San Germán	110.00	354.00	330.00	794.00	
11	{Añasco	209.70	266.00	68.23	543.93	2,488.02
	{Las Marias	126.00	102.00	61.45	289.45	
	{Mayaguez	552.00	724.00	378.64	1,654.64	
12	{Aguada	56.00	136.00	18.83	210.83	1,328.70
	{Aguadilla	157.52	490.00	113.93	761.45	
	{San Sebastian	68.33	192.00	96.09	356.42	
13	{Camuy	127.00	392.00	130.07	649.07	973.36
	{Isabela	114.00	170.00	40.29	324.29	
14	{Arecibo	402.00	715.25	162.81	1,280.06	1,667.40
	{Lares	120.00	186.00	81.34	387.34	
15	{Adjuntas	158.40	278.26	100.48	537.14	1,445.22
	{Utua	260.00	385.00	263.08	908.08	
16	{Ciales	146.00	186.00	120.00	452.00	1,481.88
	{Manati	253.00	330.00	256.91	839.91	
	{Morovis	66.00	102.00	21.97	189.97	
17	{Toa Alta	156.00	150.70	55.72	362.42	823.99
	{Vega Baja	130.00	266.00	65.57	461.57	
18	{Bayamón	410.00	674.00	113.52	1,197.52	1,197.52
	{Vieques	85.66	153.34	68.46	307.46	307.46
Total		10,376.91	15,709.45	9,338.76	35,425.12

TABLE XIV.—*Bimonthly expenses incurred by the local school boards during the fiscal year ending June 30, 1904; also indebtedness of each local school board in the several municipalities at the close of the fiscal year by municipalities, school districts, and totals for the island—Continued.*

EXPENSES OF LOCAL SCHOOL BOARDS—Continued.

School district.	Municipality.	January and February, 1904.				
		Rent of school-houses.	Teachers' house rent.	Incidentals.	Total municipality.	Total district.
1	Carolina	\$210.00	\$306.66	\$30.00	\$546.66	\$5,602.73
	Rio Pedras	89.00	220.00	66.25	375.25	
	San Juan	1,856.00	1,510.33	1,314.49	4,680.82	
2	Fajardo	110.00	320.00	207.28	637.28	1,667.04
	Naguabo	120.00	140.00	105.96	365.96	
	Rio Grande	218.00	348.00	97.80	663.80	
3	Humacao	240.00	324.00	243.42	807.42	1,849.78
	San Lorenzo	155.00	280.00	103.20	538.20	
	Yabucoa	180.00	230.00	94.16	504.16	
4	Aguas Buenas	62.00	100.00	36.34	198.34	1,835.35
	Caguas	206.00	472.00	141.35	819.35	
	Cayey	228.00	380.50	209.16	817.66	
5	Guayama	288.00	594.00	876.09	1,758.09	1,991.84
	Patillas	60.00	102.00	71.75	233.75	
6	Aibonito	69.00	182.00	112.60	363.60	1,177.05
	Barros	125.00	288.00	26.70	439.70	
	Comerio	94.00	154.00	125.75	373.75	
7	Coamo	211.20	293.00	78.23	582.43	1,602.60
	Juana Diaz	244.00	290.00	192.75	726.75	
	Santa Isabel	128.00	105.20	60.22	293.42	
8	Ponce	1,304.40	1,628.40	521.37	3,454.17	3,454.17
9	Lajas	88.00	110.00	25.05	223.05	1,474.34
	Sabana Grande	94.00	210.50	85.72	390.22	
	Yauco	214.00	470.00	177.07	861.07	
10	Cabo Rojo	80.00	220.00	126.28	426.28	1,308.12
	Maricao	80.00	108.00	138.34	326.34	
	San German	110.00	354.00	91.50	555.50	
11	Añasco	209.60	264.00	59.00	532.60	2,440.02
	Las Marias	126.00	132.00	67.40	325.40	
	Mayaguez	446.00	724.00	412.02	1,582.02	
12	Aguada	56.00	136.00	16.36	208.36	1,502.76
	Aguadilla	157.52	490.00	266.87	914.39	
	San Sebastian	66.00	192.00	122.01	380.01	
13	Camuy	127.00	392.00	128.88	647.88	950.65
	Isabela	114.00	160.00	28.77	302.77	
14	Arecibo	402.00	720.00	214.56	1,336.56	1,723.90
	Lares	120.00	186.00	81.34	387.34	
15	Adjuntas	140.00	270.00	124.26	534.26	1,370.61
	Utuado	260.00	432.00	144.35	836.35	
16	Ciales	146.00	186.00	60.90	392.90	1,615.19
	Manati	238.00	336.00	438.32	1,032.32	
	Morovis	66.00	82.00	41.97	189.97	
17	Toa Alta	156.00	150.70	55.72	362.42	894.73
	Vega Baja	130.00	266.00	136.31	532.31	
18	Bayamón	434.00	674.00	125.07	1,183.07	1,183.07
	Vieques	86.00	122.98	194.89	403.87	403.87
	Total	10,363.72	15,606.27	8,077.83		34,047.82

TABLE XIV.—*Bimonthly expenses incurred by the local school boards during the fiscal year ending June 30, 1904; also indebtedness of each local school board in the several municipalities at the close of the fiscal year by municipalities, school districts, and totals for the island—Continued.*

EXPENSES OF LOCAL SCHOOL BOARDS—Continued.

School district.	Municipality.	March and April, 1904.				Total district.
		Rent of school-houses.	Teachers' house rent.	Incidentals.	Total municipality.	
1	Carolina	\$226.00	\$310.00	\$66.22	\$602.22	\$5,578.64
	Rio Piedras	89.00	220.00	59.62	368.62	
	San Juan	1,860.00	1,527.33	1,220.47	4,607.80	
2	Fajardo	110.00	320.00	147.77	577.77	1,493.99
	Naguabo	104.00	140.00	50.00	294.00	
	Rio Grande	218.00	336.00	68.22	622.22	
3	Humacao	150.00	324.00	387.49	861.49	1,750.48
	San Lorenzo	152.00	137.00	103.83	392.83	
	Yabucoa	180.00	222.00	94.16	496.16	
4	Aguas Buenas	62.00	100.00	46.66	208.66	1,853.72
	Caguas	206.00	472.00	157.77	835.77	
	Cayey	228.00	377.50	203.79	809.29	
5	Guayama	433.00	592.00	216.79	1,271.79	1,454.79
	Patillas	60.00	102.00	21.00	183.00	
6	Aibonito	69.00	182.00	120.89	371.89	1,069.27
	Barros	125.00	288.00	14.00	427.00	
	Comerio	94.00	154.00	22.38	270.38	
7	Coamo	204.93	290.00	139.41	634.34	2,531.99
	Juana Diaz	488.00	580.00	447.73	1,515.73	
	Santa Isabel	128.00	113.60	140.32	381.92	
8	Ponce	1,297.60	1,614.40	596.73	3,508.73	3,508.73
9	Lajas	88.00	125.00	16.49	229.49	1,530.12
	Sabana Grande	94.00	222.00	43.49	359.49	
	Yauco	222.00	463.75	255.39	941.14	
10	Cabo Rojo	80.00	220.00	116.39	416.39	1,365.83
	Maricao	80.00	108.00	55.94	243.94	
	San Germán	110.00	352.50	243.00	705.50	
11	Añasco	209.60	264.00	68.21	541.81	2,492.20
	Las Marias	126.00	132.00	70.00	328.00	
	Mayaguez	535.00	704.00	383.39	1,622.39	
12	Aguada	56.00	136.00	192.00	1,326.77
	Aguadilla	149.20	490.00	131.10	770.30	
	San Sebastian	66.00	192.00	106.47	364.47	
13	Camuy	144.00	392.00	87.02	623.02	914.06
	Isabela	114.00	160.00	17.04	291.04	
14	Arecibo	402.00	716.00	365.57	1,483.57	1,977.57
	Lares	120.00	186.00	188.00	494.00	
15	Adjuntas	140.00	270.00	127.10	537.10	1,350.60
	Utua	260.00	431.00	122.50	813.50	
16	Ciales	146.00	186.00	76.00	408.00	1,338.27
	Manati	258.00	378.33	113.16	749.49	
	Morovis	66.00	82.00	32.78	180.78	
17	Toa Alta	156.00	150.70	81.25	387.95	996.81
	Vega Baja	130.00	266.00	212.86	608.86	
18	Bayamón	410.00	659.00	144.36	1,213.36	1,213.36
	Vieques	86.00	140.66	95.06	321.72	321.72
Total		10,762.33	15,828.77	7,477.82	34,068.92

TABLE XIV.—*Bimonthly expenses incurred by the local school boards during the fiscal year ending June 30, 1904; also indebtedness of each local school board in the several municipalities at the close of the fiscal year by municipalities, school districts, and totals for the island—Continued.*

EXPENSES OF LOCAL SCHOOL BOARDS—Continued.

School district.	Municipality.	May and June, 1904.					Total expenses during year.	
		Rent of school houses.	Teachers' house rent.	Incidentals.	Total municipality.	Total district.	Municipality.	District.
1	Carolina	\$210.00	\$310.00	\$71.60	\$591.60		\$2,963.58	
	Rio Piedras	89.00	220.00	67.31	376.31		1,994.60	
	San Juan	1,860.00	1,579.00	1,614.85	5,053.85		29,252.45	
						\$6,021.76		\$34,210.63
2	Fajardo	110.00	320.00	221.69	651.69		3,187.85	
	Naguabo	104.00	120.00	76.68	300.68		1,902.84	
	Rio Grande	218.00	340.60	84.09	642.69		3,485.82	
						1,595.06		8,576.51
3	Humacao	150.00	324.00	430.18	904.18		3,849.08	
	San Lorenzo	158.00	272.00	54.92	484.92		2,546.32	
	Yabucoa	180.00	222.00	96.16	498.16		2,659.96	
						1,887.26		9,055.36
4	Aguas Buenas	54.00	210.00	19.44	283.44		1,084.33	
	Caguas	206.00	472.00	151.80	829.80		5,085.72	
	Cayey	228.00	360.00	89.39	677.39		3,896.62	
						1,790.63		10,066.67
5	Guayama	380.00	586.39	721.99	1,688.38		8,356.21	
	Patillas	60.00	102.00	8.77	170.77		1,018.18	
						1,859.15		9,374.39
6	Aibonito	69.00	182.00	13.61	264.61		1,614.10	
	Barros	125.00	288.00	30.00	443.00		2,264.60	
	Comerio	94.00	154.00	38.75	286.75		1,458.31	
						994.36		5,337.01
7	Coamo	203.20	290.00	108.94	602.14		3,669.93	
	Juana Diaz	244.00	290.00	287.66	821.66		4,969.33	
	Santa Isabel	128.00	113.60	121.50	363.10		1,992.93	
						1,786.90		10,632.19
8	Ponce	1,381.60	1,590.90	536.71	3,509.21	3,509.21	18,265.99	18,265.99
9	Lajas	88.00	126.00	14.30	228.30		1,212.69	
	Sabana Grande	94.00	222.00	56.00	372.00		1,933.44	
	Yauco	222.00	470.00	176.31	868.31		4,338.01	
						1,468.61		7,484.14
10	Cabo Rojo	80.00	217.00	126.42	423.42		2,267.27	
	Maricao	80.00	108.00	88.83	276.83		1,384.58	
	San Germán	110.00	348.00	557.50	1,015.50		4,160.20	
						1,715.75		7,812.05
11	Añasco	209.60	264.00	82.00	555.60		3,022.79	
	Las Marias	126.00	132.00	61.75	319.75		1,661.93	
	Mayaguez	548.00	724.00	447.62	1,719.62		8,264.42	
						2,594.97		12,949.14
12	Aguada	56.00	136.00	25.17	217.17		1,022.11	
	Aguadilla	149.20	490.00	139.26	778.46		4,380.10	
	San Sebastian	66.90	192.00	119.13	377.13		1,834.09	
						1,372.76		7,236.30
13	Camuy	144.00	392.00	85.91	621.91		2,933.73	
	Isabela	114.00	160.00	45.26	319.26		1,626.81	
						941.17		4,560.54
14	Arecibo	402.00	720.00	552.32	1,674.32		7,225.97	
	Lares	120.00	186.00	143.00	449.00		2,056.43	
						2,123.32		9,282.40
15	Adjuntas	140.00	270.00	100.22	510.22		2,681.75	
	Utua	260.00	431.00	274.10	965.10		4,478.40	
						1,475.32		7,160.15
16	Ciales	146.00	186.00	73.96	405.96		2,380.31	
	Manatí	258.00	360.00	106.41	724.41		4,472.46	
	Morovis	66.00	82.00	11.18	159.18		953.48	
						1,289.55		7,806.25
17	Toa Alta	156.00	150.70	67.88	374.58		2,176.70	
	Vega Baja	130.00	266.00	103.07	499.07		2,649.50	
						873.65		4,826.20
18	Bayamón	391.33	683.50	255.29	1,330.12	1,330.12	6,239.72	6,239.72
	Vieques	86.00	143.83	76.41	306.24	306.24	1,707.47	1,707.47
	Total	10,493.93	15,806.52	8,635.34		34,935.79		182,583.11
	Grand total	60,708.02	71,061.36	50,813.73				182,583.11

TABLE XIV.—*Bimonthly expenses incurred by the local school boards during the fiscal year ending June 30, 1904; also indebtedness of each local school board in the several municipalities at the close of the fiscal year by municipalities, school districts, and totals for the islands—Continued.*

EXPENSES OF LOCAL SCHOOL BOARDS—Continued.

School district.	Municipality.	Indebtedness of school boards at end of fiscal year 1903-4.				
		Rent of school houses.	Teachers' house rent.	Incidentals.	Total municipality.	Total district.
1	Carolina	\$510.00	\$70.34	\$118.00	\$698.34	\$2,807.33
	Rio Piedras		3.34		3.34	
	San Juan	430.00	50.00	1,625.35	2,105.35	
2	Fajardo		129.54		129.54	1,514.22
	Naguabo	531.00	462.50	359.09	1,352.59	
	Rio Grande		6.00	26.09	32.09	
3	Humacao	116.00	61.00	464.39	641.39	2,451.04
	San Lorenzo	249.32	543.95	15.86	809.13	
	Yabucoa	341.04	379.87	279.61	1,000.52	
4	Aguas Buenas	535.50	500.27	41.29	1,077.06	2,268.12
	Caguas	138.21			138.21	
	Cayey	468.00	560.50	24.35	1,052.85	
5	Guayama	6.00	64.00	442.87	512.87	901.87
	Patillas	204.00	185.00		389.00	
6	Aibonito	51.04	245.00	247.56	543.60	3,219.76
	Barros	666.40	471.00	68.42	1,205.82	
	Comerio	696.20	674.27	99.87	1,470.34	
7	Coamo	304.80			304.80	4,330.87
	Juana Diaz			337.18	337.18	
	Santa Isabel					
8	Ponce	3,528.00	574.70	228.17	4,330.87	3,723.25
9	Lajas	278.00	538.00	2.98	818.98	1,572.08
	Sabana Grande	129.00	351.00	41.35	521.35	
	Yauco	1,134.42	790.00	458.50	2,382.92	
10	Cabo Rojo	120.00	345.00	140.16	605.16	11,081.15
	Maricao	140.00	162.00	119.37	421.37	
	San Germán			545.55	545.55	
11	Añasco	1,045.02	870.82	192.86	2,108.70	1,311.44
	Las Marias	1,041.00	719.00	224.15	1,984.15	
	Mayaguez	2,727.45	3,636.00	624.85	6,988.30	
12	Aguada	84.00	408.00	9.84	501.84	2,954.38
	Aguadilla	74.60	735.00		809.60	
	San Sebastian					
13	Camuy	669.00	1,648.60	70.50	2,388.10	1,672.31
	Isabela	288.00	240.00	38.28	566.28	
14	Arecibo	422.00	280.00	325.97	1,027.97	2,966.08
	Lares	180.00	291.00	173.34	644.34	
15	Adjuntas	449.47	890.66	117.40	1,457.53	5,162.69
	Utüado	638.00	870.55		1,508.55	
16	Ciales	637.00	854.60	119.50	1,611.10	1,182.35
	Manatí	1,032.00	1,388.33	590.26	3,010.59	
	Morovis	296.00	245.00		541.00	
17	Toa Alta	872.30	221.84	88.21	1,182.35	51,368.95
	Vega Baja					
18	Bayamón	631.83	680.00	296.50	1,608.33	
	Vieques					
Total		21,664.60	21,146.68	8,557.67		

TABLE XV.—Summary of school statistics for the school year 1903-4, common schools and special schools.

District No.	1	2	3				4	5	6	7	8	9	10	11	12	
			Total enrollment of pupils during the year.													
			White.		Colored.											Tot 1.
			Male.	Fe- male.	Male.	Fe- male.										
COMMON SCHOOLS.																
1	107	120	1,901	1,420	1,172	987	5,480	54.26	35.27	154.88	584,509.5	16,572.0	3,767.02	1,525	\$84,210.63	
2	60	65	1,335	1,019	1,044	621	3,679	43.41	45.22	159.54	432,794.0	9,572.5	2,714.02	163	8,576.51	
3	56	62	1,357	941	992	326	3,116	55.61	37.47	132.75	322,575.0	8,554.0	2,000.02	139	9,055.36	
4	63	75	1,511	1,158	1,014	411	3,694	60.56	37.72	158.67	377,105.0	9,986.5	2,573.13	146	10,066.67	
5	39	47	1,770	452	556	485	2,263	2,180	38.71	163.85	247,369.5	6,380.0	1,808.10	121	9,374.39	
6	46	52	1,337	787	647	106	2,467	2,379	38.62	157.03	279,214.0	7,229.5	1,776.22	.....	5,337.01
7	51	59	1,259	840	644	412	3,155	3,000	43.51	157.03	348,730.5	8,008.5	2,215.71	233	10,632.19	
8	92	93	1,664	1,261	937	602	4,279	4,153	49.76	150.87	505,312.0	13,880.5	3,355.24	533	18,263.99	
9	64	64	1,273	1,087	937	215	2,972	2,957	54.04	157.63	348,464.5	8,609.5	2,203.35	95	7,484.14	
10	55	61	1,318	1,004	961	260	2,943	2,840	60.06	166.53	302,724.0	8,160.0	1,816.67	277	7,812.05	
11	78	95	2,045	1,608	505	463	4,621	4,512	59.23	158.08	407,875.0	12,377.0	2,573.03	868	12,949.14	
12	59	64	1,853	1,044	307	244	3,448	3,296	58.44	160.40	327,781.5	9,484.5	2,040.84	120	7,236.30	
13	40	48	1,402	810	124	74	2,410	2,377	63.42	155.97	270,102.5	6,239.0	1,734.46	.....	.....
14	61	68	1,619	1,132	180	301	3,432	3,295	56.28	162.68	340,496.0	9,313.5	2,232.71	192	9,282.40	
15	45	50	1,462	1,042	105	603	2,672	2,467	59.38	157.56	251,286.5	7,090.5	1,594.65	23	7,160.15	
16	32	35	1,712	973	325	274	3,215	3,142	66.98	163.10	321,591.5	7,987.5	1,969.68	144	7,806.25	
17	49	48	1,068	755	357	205	2,454	2,365	51.54	164.60	257,815.5	6,584.0	1,559.40	.....	.....
18	59	65	1,150	899	188	453	3,082	2,864	56.04	150.06	299,810.5	8,853.5	1,997.74	338	6,239.72	
Vicques.	11	16	207	192	157	108	664	626	66.40	144.82	58,500.5	1,593.0	404.36	24	1,707.47	
Total	1,060	1,204	26,243	18,424	8,769	6,610	60,046	57,683	37.73	157.12	6,284,147.5	166,555.5	39,928.35	4,841	182,588.11	
SPECIAL SCHOOLS.																
High schools	3	13	64	33	9	6	112	37.33	28.84	166.00	14,364.0	498.0	86.31	.....	.....
Industrial schools	4	31	228	200	44	72	604	151.00	89.97	135.50	48,763.0	542.0	362.26	.....	.....
Night schools	26	32	790	285	533	138	1,746	1,733	30.48	134.73	106,788.0	3,503.0	767.80	.....	.....
Agricultural schools	14	11	448	166	169	70	853	60.93	36.24	163.86	83,147.0	2,294.0	505.56	.....	.....
Kindergarten schools	6	5	74	74	23	24	195	32.50	24.67	167.33	24,761.0	1,004.0	147.98	.....	.....
Total	53	61	1,604	818	778	310	3,510	3,485	35.43	147.94	277,826.0	7,841.0	1,869.91	.....	.....
Grand total	1,113	1,265	27,847	19,242	9,547	6,920	63,556	61,168	37.62	156.08	6,561,973.5	174,396.5	41,798.26	4,841	.....
All schools:																
First term	1,076	1,164	22,114	14,801	7,995	5,649	50,559	46.99	36.45	59.43	2,330,869.5	63,951.0	39,112.77	3,474	.....
Second term	1,075	1,181	23,604	16,089	7,993	5,755	53,387	49.66	38.34	50.17	2,061,374.0	53,929.0	42,059.46	4,841	.....
Third term	1,069	1,173	22,405	15,938	7,527	5,503	51,373	48.06	38.39	52.86	2,169,730.0	56,516.5	40,858.71	.....	.....

a31 duplicated, not included in total.

PROPERTY REPORT OF CHIEF OF DIVISION OF SCHOOL PROPERTY AND SUPPLIES.

DIVISION OF PROPERTY AND SUPPLIES,
San Juan, June 1, 1904.

The COMMISSIONER OF EDUCATION.

SIR: I take pleasure in submitting herewith the first annual report of the work of the division of property and supplies.

Previous to the establishment of this division, July 1, 1903, the purchase and distribution of schoolbooks and supplies was in charge of the disbursing officer of the department, but his manifold duties precluded proper attention to the constantly increasing demands of this work; hence the creation of this division. Coincident with its installation the writer took charge, the disbursing officer turning over to him school property on hand in the storehouse valued at \$21,149.34.

The system of accounts then in use was found to be inadequate in many ways, and a system of vouchers and abstracts already planned was inaugurated and has accomplished the looked-for results, very little difficulty now being experienced in making up the annual returns of property required of the superintendents and others with whom the department has dealings. An accurate account of incoming and outgoing books and supplies is kept by means of order blanks and card records, showing the daily balance of every article on hand. These records are checked by actual count at stated times, thus leaving no loophole for errors. The record of the shipping clerk is also checked with the office records on the first of each month.

Responsibility for the care and return of school property is fixed as follows: Pupils are responsible to their teachers; the teachers to the superintendent of the district, and the superintendents, through this division, to the department. On our books we carry accounts with 19 superintendents, the principals of 2 high schools, supervising principal of kindergartens, supervisor of drawing, and the supervising principal of industrial schools.

The purchase of supplies for 1,020 rural and graded schools, 14 agricultural schools, 3 high schools, 4 industrial schools, and 6 kindergarten schools are made through this division, as well as books for the pedagogical library of the department and supplies for the office of the department.

At the end of the school year superintendents are requested to make requisition for the supplies needed for the following year. These requisitions are tabulated and carefully scrutinized with a view to cutting out excessive demands, unnecessary items or books which, in the opinion of the department, are not in conformity with the course of study laid out for the schools. Considerable latitude within the limits named is allowed in the choice of books, as evidenced by the table following this report.

The following statistics give the work of the division at a glance. As it shows a larger amount of property on hand than last year, a word of explanation may not be amiss. Among the books on hand we have a large number of one on which a specially low price quoted enabled us to buy a supply for several years, representing a value of \$4,400. A number of books also given in this total are books purchased by former administrations and are not now in use. If authority could be secured to exchange these books for others more in accord with the course of study, it would be well to do so. In the total of expendable property given (\$1,827.50) a large part is represented by practice paper for the schools. An advantageous price was given on this and enough purchased for two years.

Chalk, pencils, paper, pens, penholders, ink, etc., are classed as "expendable" property--i. e., property which is used up and is not returnable.

	On hand July 1, 1903.	Purchased 1903-4.	Total.	Distributed 1903-4.	On hand July 1, 1904.
Text-books	\$13,349.30	\$30,802.07	\$44,151.37	\$28,231.95	\$15,919.42
Expendable supplies	4,662.84	12,695.49	17,358.33	13,214.39	4,143.94
Agricultural implements	221.67	.....	221.67	82.33	139.34
School furniture	2,604.70	6,490.71	9,095.49	8,432.55	662.94
Industrial schools:					
Petty supplies		393.54	393.54	393.54	.....
Machinery, equipment, material, etc.		4,453.27	4,453.27	4,282.28	170.99
Miscellaneous:					
Charts, maps, globes, blackboard cloth, etc.	310.75	996.16	1,306.91	793.87	513.04
Kindergarten schools		50.63	50.63	50.63	.....
Total	21,149.34	55,881.87	77,031.21	55,481.54	21,549.67

The percentage of the cost of care and distribution and transportation of all supplies to the cost of the articles is a trifle more than 7 per cent, made up as follows:

Island transportation.....	\$635.00
Expenses, storehouse.....	100.00
Wages of laborers stacking books, stamping, etc.....	316.00
Salaries, chief of division and shipping clerk.....	2,949.60
Rent of storehouse for year.....	1,500.00
Total.....	5,500.60

$77,031/5,500.00=0.07+$.

Appended to this report is a table showing the number of each individual textbook on hand July 1, 1903, purchased during the year, distributed, the number now in the school districts, and the total of all books now in use on the island. A summary follows:

On hand July 1, 1903.....	23, 112	Distributed, 1903-4.....	75, 269
Purchased, 1903-4.....	96, 366	On hand July 1, 1904.....	47, 015
Sent in by superintendents.....	2, 806		
Total.....	122, 284	Total.....	122, 284
Received.....			99, 172
Distributed.....			75, 269

Actually handled..... 174, 441

Following a system in use in many large cities of the United States, a uniform schedule of expendable supplies according to the different necessities has been made up and will be followed during the coming year. Each teacher will receive a certain amount of supplies, which will be expected to last her for a definite period under ordinary conditions. Its working in practical operation remains to be seen.

No general condemnation of worn-out and useless schoolbooks can be held this year, and a deduction of about 10 per cent must be made from the total of books in the districts for this purpose. Some of these books have been accumulating for two or three years and will be condemned and taken from the accounts of the superintendents before school opens in September, if possible. The purchase of book covers, I am convinced, would lengthen the life of the books appreciably.

In conclusion I beg to thank you for your uniform courtesy and helpful suggestions, the disbursing officer for his efficient cooperation in many ways, and the shipping clerk for his accuracy and economy in the handling of the supplies.

Respectfully submitted.

C. O. LORD, *Chief of Division.*

Number of text-books handled by the division of property and supplies during the school year 1903-4, and the total number of schoolbooks in use June 30, 1904.

Title of book.	On hand June 30, 1903.	Purchased, 1903-4.	Received from superintendents.	Total.	Distributed, 1903-4.	On hand June 30, 1904.	On hand, superintendents.	Total books in island.
Agriculture:								
Winslow.....	1			1	1		16	16
Nichols.....	2			2		2	8	10
Agricultura Tropical (Spanish).....	15			15	1	14	14	28
Anabasis, G. & W.....		6		6	6		6	6
Arithmetic:								
Elementary, Wentworth.....	14			14	14		608	608
Practical, Wentworth.....		50		50	25	25	72	97
Elementary, Brooks.....	1,056			1,056	896	160	1,218	1,378
N. M., Brooks.....	509			509	446	63	632	695
N. S., Brooks.....	909			909	230	679	636	1,315
Perkins.....							1	1
Aritmética Elementaria (Spanish), Wentworth.....	15	4,000	114	4,129	4,015	114	27,128	27,242
Aritmética, Práctica (Spanish), Wentworth.....	14	1,500	114	1,628	1,371	257	5,440	5,697
Aritmética Compendio, de (Spanish).....	35			35	7	28	122	150

Number of text-books handled by the division of property and supplies during the school year 1903-4, and the total number of schoolbooks in use June 30, 1904—Continued.

Title of book.	On hand June 30, 1903.	Purchased, 1903-4.	Received from superintendents.	Total.	Distributed, 1903-4.	On hand June 30, 1904.	On hand, superintendents.	Total books in island.
Algebra:								
Secondary, F. & S.	6			6		6	17	23
Rudiments of F. & S.	48			48	43	5	66	71
Essentials of, Wells		17		17	17		17	17
Elementary, Brooks	107			107	41	66	116	182
N. S., Wentworth							51	51
Spanish, Celedón	145		60	205		205	4	209
Animal Life, Jordan-Kellogg	23			23		23		23
Astronomy, Young	24			24		24		24
Ancient Mariner, Coleridge	15			15	5	10	25	35
Addison, Macaulay		30		30	30		30	30
Azabache (Spanish)	24						168	168
Botany, Bergen	24			24		24		24
Biology, Bidgood	29			29		29		29
Burns, Essay on, Carlyle		30		30	30		30	30
Conciliation of America, Burke		30		30	29	1	29	30
Canciones Escolares (Spanish)	420	2,000		2,420	2,420		6,832	6,832
Claws and Hoofs, Johonnot	17			17	17		17	17
Cats and Dogs, Johonnot	17			17	17		17	17
Correct Composition		12		12	12		12	12
Cæsar, Harper-Tolman			15	15	15		52	52
Color Printer	1	1		1	1	1	1	1
Chemistry, Elementary, Williams		40		40	40		40	40
Chemical Exercises, Williams		50		50	49	1	49	50
Chemical Science, Williams	43			43		43		43
Chemistry, Cooley							6	6
Cicero, Harper-Gallup		25		25	25		25	25
Cartilla Ilustrada, Fuller	29	1,200		1,229	300	929	14,851	15,780
Cartilla de Arnold (Spanish)		2,000		2,000	1,600	400	1,600	2,000
Composition and Rhetoric:								
Hart	19			19		19	4	23
L. & E.	13	50		63	6	57	49	106
Circe's Palace, Hawthorne		250		250	160	90	160	250
Civics, First Lessons, Forman							35	35
Dictionaries:								
Webster's High School		10		10	10		10	10
Webster's Academic							10	10
Webster's Unabridged							1	1
Appleton, Spanish-English		1,500		1,500	1,227	273	1,227	1,500
Velázquez, Spanish-English		100		100	84	16	1,031	1,047
Classic							1	1
Spanish-Latin							5	5
Dirección de las Escuelas.			154	154	137	17	949	966
El Lector Moderno (Spanish):								
No. 1.		5,000		5,000	4,682	318	5,128	5,466
No. 2.		4,000		4,000	3,713	287	4,290	4,577
No. 3.	960	1,500		2,460	2,460		3,291	3,291
El Pájaro Verde		20		20	19	1	19	20
Estudio del Niño, Taylor (Spanish)	14			14	8	6	20	26
El Niño y su Naturaleza (Spanish)	19			19		19		19
El Gobierno Municipal, Conkling	1			1		1		1
Embossing Made Easy		1		1	1		1	1
Easy Steps for Little Feet.	19			19	19		19	19
Electricity, Caillard	1			1		1	3	4
Encyclopedia (17 volumes)							1	1
Fisiología, Foster (Spanish)	62		118	180	115	65	989	1,054
Fisiología é Higiene, Huxley (Spanish)								
Física:	83			83		83	63	146
Nociones de, Stewart (Spanish)	18		117	135	108	27	843	870
Ortiz (Spanish)	29			29		29	20	49
French Reader, Longman	29			29		29		29
French Method (Spanish), Ollendorf.	19			19		19		19
Fables and Stories		250		250	160	90	160	250
Feathers and Furs, Johonnot	17			17	17		17	17
Flyers, Creepers, Swimmers	17			17	17		17	17
Geography:								
New Physical, Houston	1			1		1	21	22
Natural Elementary, R. & H.	38			38		38	57	95
Elementary, Frye	15	300		315	315		539	539
Grammar School, Frye	1,140			1,140	525	915	2,589	3,504
Physical, Davies	18			18	18		30	30
Geografía (Spanish):								
Elementary, Frye	10	1,000	230	1,240	1,223	17	13,250	13,267
Superior, Illustrated	728			728	450	278	2,982	3,260
Universal		199		1,999	33	166	33	199

Number of text-books handled by the division of property and supplies during the school year 1903-4, and the total number of schoolbooks in use June 30, 1904—Continued.

Title of book.	On hand June 30, 1903.	Purchased, 1903-4.	Received from superintendents.	Total.	Distributed, 1903-4.	On hand June 30, 1904.	On hand, superintendents.	Total books in island.
Grammar:								
First Lessons, Welsh	29			29	20	9	184	193
Practical English, Welsh	10			10	10		1,073	1,073
French, Granger	10			10		10		10
German, Edgren-Foster	19			19		19		19
Latin, Harkness	29	50		79	50	29	70	99
Gramática:								
Castellana, Hernández (Spanish)	2,253		168	2,421	2,286	135	4,972	5,107
Castellana, Smith							44	44
Latina, Burnouf (Spanish)							29	29
Geometry:								
Plane, Brooks	80			80		80	29	109
Plane and Solid, Wentworth	49			49	49		58	58
Geometria Inventiva (Spanish)	186		20	206		206	10	216
Geology, Dana	2			2	1	1	3	4
Government of United States and								
Porto Rico, Thorpe		2,000		2,000	1,301	699	1,252	1,951
German, First Year, Keller	19			19		19		19
Guías para Maestros, Arnold (Spanish)								
		200		200	179	21	1,221	1,242
Golden Touch, Hawthorne		250		250	160	90	160	250
Greek, First Book, White		10		10	6	4	6	10
Gobierno de los Estados Unidos (Spanish)							14	14
History of United States:								
Brief, Barnes	44	100		144	144		352	352
Primary, Barnes							106	106
Eggleston	296		97	393	358	35	3,988	4,023
Primary, McMaster		250		250	246	4	248	252
McMaster	74			74	74		102	102
Students', Channing	10			10	10		11	11
Johnson							3	3
Montgomery	6						6	6
History:								
Ancient, Myers		100		100	54	46	54	100
General, Myers		25		25	12	13	12	25
Modern and Medieval People	23			23	23		49	49
Greece	9	30		39	39		48	48
Rome							47	47
History of Education, Kemp	2			2	2		38	40
Historia de los Estados Unidos:								
Nociones	319		302	621	319	302	10,636	10,938
McMaster	2,732			2,732	565	2,167	2,755	4,922
Quackenbos	193			193		193	3	196
Historia de América, Montgomery		25,000		25,000	2,750	22,250	2,750	25,000
Historia de Puerto Rico, Brau		2,000		2,000	453	1,547	453	2,000
Historia de Grecia							24	24
Historia de Roma							18	18
Hygiene, Elements of, Ames	2,447			2,447	520	1,927	2,957	4,884
How Plants Grow, Gray	17			17	8	9	8	17
Hints on Imposition		6		6	6		6	6
How We are Governed, Dawes							4	4
House of Seven Gables							17	17
Ivanhoe		30		30	29	1		30
Iliad, Seymour	6			6	6		6	6
Inglés en 20 Lecciones			90	90		90		90
Julius Caesar, Shakespeare		30		30	29	1	29	30
Lecciones de Lenguaje		1,500		1,500	1,500		5,469	5,469
Literature, Westlake	32			32	32		69	69
Libro Primero A. B. C.		2,000		2,000	2,000		21,126	21,126
Libro Segundo A. B. C.							11,289	11,289
Libro Tercero A. B. C.	1,481			1,481	657	824	9,345	10,169
Libro Primero S. B. C.		1,240		1,240	1,239	1	1,239	1,240
Libro Segundo S. B. C.		4,050	59	4,050	3,229	821	10,868	11,689
Libro Tercero S. B. C.	1,202	1,000	97	2,299	1,316	983	5,733	6,716
Libro Cuarto S. B. C.		1,000		1,000	999	1	874	8,875
Los Primeros Pasos	139	1,500	39	1,678	1,148	530	17,362	17,892
Life of Nelson	15			15		15	20	35
Lo Esencial del Lenguaje, R.	43			43	34	9	173	182
Lady of the Lake, Scott	15			15		15		15
L'Allegro, Milton		30		30	29	1	29	30
Le Voyage de M. Perrichon		40		40	39	1	39	40
Le Pays de France		40		40	39	1	39	40
Life of Columbus	6			6	6		840	840

Number of text-books handled by the division of property and supplies during the school year 1903-4, and the total number of schoolbooks in use June 30, 1904—Continued.

Title of book.	On hand June 30, 1903.	Purchased, 1903-4.	Received from superintendents.	Total.	Distributed, 1903-4.	On hand June 30, 1904.	On hand superintendents.	Total books in island.
Logarithm and Trigonometry Tables, Strong	18			18		18	6	24
Latin Book, Collar and Daniel	49			49		49		49
Latin Book, Beginners', S. & S.	2	25	25	52	50	2	94	96
Latin Composition, M. & C.		25		25	24	1	24	25
Lecciones de Cosas.							1	1
Life of Washington							2,088	2,088
Latin, Shorter Course							15	15
Last of Mohicans, Cooper							17	17
Mother Tongue, Arnold:								
No. 1		7,000		7,000	4,477	2,523	4,477	7,000
No. 2	39	400		439	417	22	378	400
Music, Short Course:								
No. 1		300		300	151	149	161	310
No. 2	21	100		121	101	20	109	129
Music Reader:								
No. 1	211			211	151	60	151	211
No. 2	88			88	1	87	120	207
Musa Bilingüe.		450		450	25	425	25	450
Milton, Essay on, Macaulay		30		30	29	1	29	30
Macbeth, Shakespeare		30		30	29	1	29	30
Merchant of Venice, Shakespeare		20		20	20		25	25
Miraculous Pitcher, Hawthorne		250		250	160	90	160	250
Marinela, Galdos (Spanish)		40		40	39	1	39	40
Music charts, reduced	102			102	102		106	106
Modelas para Cartas (Spanish)							2	2
Music Primer, Ripley-Tappan							690	690
Primer:								
Appleton	1,557	2,447		4,004	2,978	1,026	11,180	12,206
Hall and Brumbaugh		3,000		3,000	2,636	364	2,834	3,198
Primeros Peldaños (Spanish)		3,760		3,760	3,440	320	9,283	9,603
Physics, Elements of, R. & A.	19			19		19	30	49
Physical Science	24			24		24	5	29
Physics, Wentworth-Hill	24	45		45	45		51	51
Physics, Note Book		50		50	49	1	49	50
Philosophy, Natural	20			20		20	3	23
Physiology:								
Applied, Overton	2			2		2	2	4
Brief, Colton		80		80	80		80	80
Intermediate, Cutter	5			5	5		56	56
Psychology, Sully	8			8		8	2	10
Psicología Pedagógica, Sully	1			1		1	20	21
Princess, The, Tennyson	15			15	5	10	31	41
Patriotic Primer	1,000			1,000	1,000			
Practical Printer		12		12	12		12	12
Practical Facts for Printers		12		12	12		12	12
Presswork		6		6	6		6	6
Proof Reading		1		1	1		1	1
Phonography, Scott-Bowne		6		6	6		6	6
Primary Lessons							35	35
Pedagogy, Elements of, White							1	1
Physiology, Steele							25	25
Reader, Standard:								
First		2,000		2,000	2,000		20,374	20,374
Second	64	1,500	2	1,566	822	744	13,414	14,158
Third	387	1,000	994	2,381	1,456	925	8,105	9,030
Fourth	389			389	316	73	2,531	2,604
Fifth	16	100		116	71	45	1,212	1,257
Reader, Heart of Oak:								
No. 1		500		500	474	26	474	500
No. 2		500		500	474	26	474	500
No. 3		500		500	444	56	444	500
No. 4		500		500	394	106	394	500
No. 5		500		500	364	136	364	500
No. 6		500		500	326	174	326	500
Reader, Appleton's First	58			58		58	2,567	2,625
Reader, Knapp (Spanish)	25			25	24	1	24	25
Retórica y Poética (Spanish)	4			4	4		25	25
Rip Van Winkle, Irving		250		250	160	90	160	250
Riverside Reader							5,909	5,909
Reader, Matzke (Spanish)							22	22
Song Book, School and Home		2,000		2,000	2,000		9,400	9,400
Songs of the Nation		125		125	125		507	507
Song Book, Earth, Air, and Sky		50		50	50		50	50
Sewing Primer		48		48	48		48	48

a Distributed free through superintendents.

Number of text-books handled by the division of property and supplies during the school year 1903-4, and the total number of schoolbooks in use June 30, 1904—Continued.

Title of book.	On hand June 30, 1903.	Purchased, 1903-4.	Received from superintendents.	Total.	Distributed, 1903-4.	On hand June 30, 1904.	On hand, superintendents.	Total books in island.
Sewing Course.....		4		4	4		4	4
Silas Marner, Eliot.....		30		30	29	1	29	30
Sir Roger de Coverly Papers.....		30		30	29	1	29	30
Stories for Children.....	19			19	19			(a)
Story of the Thirteen Colonies.....	19			19	19			(a)
Stories for Little Folks.....		250		250	160	90	160	250
Stories of Great Americans.....							19	19
Stories of Pennsylvania.....							19	19
Spy, The, Cooper.....	5			5		5		5
Study of the Child.....	1			1		1		1
Sleepy Hollow, Legend of.....		250		250	160	90	160	250
School Methods.....							1	1
Trigonometry, Elements of.....	14			14		14	5	19
Theory and Practice of Teaching.....							2	2
Thinking and Learning to Think.....							16	16
Tales from Shakespeare.....							27	27
Vest Pocket Manual Printing.....		12		12	12		12	12
Vicar of Wakefield.....	15			15	5	10	43	53
Vision of Sir Launfal.....		20		20	20		24	24
Virgil.....							5	5
Wings and Fins, Johannot.....	17			17	17		17	17
Waymarks for Teachers.....							21	21
Young Job Printer.....		6		6	6		6	6
Zoology, Elementary, Needham.....	20			20		20	2	22
Total.....	23, 112	96, 366	2, 806	122, 284	75, 269	47, 015	316, 084	363, 150

^a Exchanged for other books.

SCHOOL BUILDINGS—REPORT OF THE CHIEF OF DIVISION OF SCHOOL EXTENSION.

DIVISION OF SCHOOL EXTENSION,
San Juan, June 4, 1904.

The COMMISSIONER OF EDUCATION,
San Juan, P. R.

SIR: I have the honor to submit report of work done in the division of school extension for the year ending June 30, 1904, as follows:

At the beginning of this fiscal year there were under construction five graded and two rural school buildings and a large industrial school building, all of which have been completed and in use for some time. Contracts have been let during this year for three graded and three rural school buildings and for repairs and alterations to an old building in Arecibo which is now used as an industrial school. All of this work, except the graded buildings, has been completed, and two of the graded school buildings should be completed before July 1 of this year. The contract for the other graded school building, one of six rooms for Rio Piedras, was let May 9, and work should begin soon. Proposals are now being asked for a three-room brick and stone graded school building at Lajas, the contract for which should be let before July 1, and plans are being prepared in the office for the following buildings: One of four rooms, frame, for Isabela; one of six rooms, brick and stone, for Juana Diaz; one of three rooms, frame, for Patillas; one of six rooms, brick and stone, for Yabucoa; one of four rooms, brick and stone, for Maricao; one of four rooms, brick and stone, for Las Marias; and one of twelve rooms, brick, for Ponce. Nearly all of these plans should be finished this summer and several of the contracts let before January 1, 1905.

In almost all of the recently constructed buildings which have tile roofs it has been found advisable to shore up roof joists with girders supported on posts, owing to the deflection of the roof timbers and the consequent cracking of the roof. Although these joists were heavy enough to safely carry the load imposed, they were not likely to have been fully set for some months, until which time the roof would continue to leak. This is due to the fact that native timber requires several months

for proper seasoning, and I know of no dealer on the island who carries sufficient stock of good, seasoned timber to supply even one building. Contracts recently made have had inserted a repair or probation clause which requires that the contractor shall maintain the building in good condition for a period of six months after its completion and acceptance by the department. This will, no doubt, cause contractors to be more careful in their selection of timber and other materials and will avoid such expense and annoyance to the department as that above mentioned.

I wish to call your attention to the bad condition of some of the frame rural school buildings erected by the department two or three years ago and which have not since been painted and in very few cases have repairs been made where needed. Under the present system of requiring the local school boards to keep their buildings in proper condition, I doubt if the desired result will be attained. In very few of the municipalities do the school boards have more than enough funds for their necessary current expenses, and they are unable to paint or keep in good repair the rural buildings. I would, therefore, recommend that some steps be taken by the department toward the preservation of these buildings.

Requests have been received by this office from school boards of several of the municipalities, who ask to be allowed to erect in the different barrios rural school buildings costing from two to three hundred dollars each, half of the expense of which would be borne by the school boards, plans to be prepared in this office and payment made to the contractor from the disbursing office of the department, the local school boards letting the contracts and supervising the construction of the buildings. This appears to be a good scheme for supplying school buildings to these municipalities which are unable to bear the cost of more expensive construction and I should be glad to see it tried as soon as possible.

Appended herewith are lists of buildings completed during this year and of those for which contracts have been let.

Respectfully,

A. M. LYONS,
Chief of Division.

The COMMISSION OF EDUCATION,
San Juan, P. R.

Graded and industrial buildings completed during the year ending June 30, 1904.

	Total cost.	Accepted.
Rio Grande, 6 rooms, brick	\$10,319.50	Sept. 12, 1903
Ponce (industrial), 16 rooms, brick	22,053.46	Dec. 18, 1903
Adjuntas, 4 rooms, brick and stone	10,130.50	Nov. 10, 1903
San Sebastian, 4 rooms, brick and stone	9,605.00	Oct. 12, 1903
Sabana Grande, 4 rooms, brick	9,170.00	Nov. 14, 1903
Guanica, 4 rooms, brick and stone	8,506.67	Dec. 25, 1903
Ponce, 6 rooms, brick	9,650.00	.....
Arecibo (industrial), 8 rooms, brick (repairs and alterations)	4,082.70	Feb. 18, 1904
Anasco, 4 rooms, brick and stone	7,349.00	.....
RURAL BUILDINGS.		
Camuy, 1 room, frame	1,600.00	Nov. 23, 1903
Mayaguez (Algarrobo), 1 room, frame	1,475.00	July 21, 1903
Aguadilla, 1 room, frame	1,675.00	Nov. 10, 1903
Utüado, 2 rooms, frame	2,448.00	Dec. 15, 1903
Mayaguez (Arriba), 1 room, frame	1,650.00	Do.

CONTRACTS LET.

Rio Piedras, six rooms, brick; price, \$10,630; dated May 9, 1904.

Special report on school extension in Porto Rico, trust fund, from January 2, 1901, to December 31, 1903.

	General fund.	Normal school group.	Specific allotments, school-houses.	Total.
AVAILABLE FUND.				
January 2, 1901, allotment	\$200,000.00			\$200,000.00
July 23, 1901, allotment		\$3,500.00		3,500.00
August 7, 1901, allotment		31,500.00		31,500.00
November 16, 1901, allotment	15,000.00			15,000.00
November 16, 1901, transfer and allotment		^a 2,000.00		2,000.00
May 5, 1902, allotment		17,000.00		17,000.00
Do	5,000.00		^b \$59,000.00	64,000.00
Do		4,000.00		4,000.00
October 17, 1903, allotments as per Exhibit A			150,076.50	150,076.50
December 31, 1903, repayments as per Exhibit B	5,662.99			5,662.99
Total	225,662.99	58,000.00	209,076.50	492,739.49
DISBURSEMENTS.				
December 31, 1903, general fund, Exhibit C	219,048.83			219,048.83
June 30, 1893, normal school group, Exhibit D		58,000.00		58,000.00
December 31, 1903, specific schoolhouses, Exhibit E			78,859.92	78,859.92
Balance January 1, 1904	6,614.16		130,216.58	136,830.74
Total	225,662.99	58,000.00	209,076.50	492,739.49

^aTransferred from insurance trust fund.

^bPonce schoolhouses, \$49,000; Rio Grande schoolhouse, \$10,000.

EXHIBIT A.

Allotments for specific schoolhouses.

1903.				
Feb. 9.	Ponce schoolhouses	\$24,000.00		
9.	Rio Grande	10,000.00		
May 14.	Ponce schoolhouses	25,000.00		
				\$59,000.00
Jan. 12.	Carolina			12,000.00
12.	San Sebastian			9,000.00
12.	Yauco			9,000.00
16.	Adjuntas			10,000.00
16.	Cabo Rojo			9,000.00
Apr. 27.	Sabana Grande			9,500.00
27.	San Sebastian			500.00
June 12.	Bayamon			9,000.00
22.	Yabucoa			13,000.00
24.	Juana Diaz			12,000.00
24.	Anasco			9,500.00
July 8.	Patillas			3,000.00
8.	Las Marias			10,000.00
8.	Rio Piedras			13,000.00
13.	Maricao			10,000.00
13.	Lajas			7,500.00
Aug. 28.	Rio Grande			319.50
Oct. 17.	Arecibo Industrial			5,757.00
	Total			150,076.50

EXHIBIT B.

Repayments by municipalities on account of schoolhouses from June 30 to December 31, 1903.

Municipality.	Amount of allotment.	Amount to be repaid.	Time of beginning repayments.	Time of completing repayments.	Amount due Dec. 31, 1903.	Actually repaid.
Ponce schoolhouses.....	\$49,000.00	\$14,100.00	July 1, 1903	1911-12	\$800.00	\$400.00
Rio Grande.....	10,000.00	5,000.00	July 1, 1902	1906-07	1,800.00	1,700.00
Carolina.....	12,000.00	6,000.00				
San Sebastian.....	9,500.00	4,750.00	July 1, 1903	1907-08	500.00	285.13
Yauco.....	9,000.00	4,248.00	.....do.....	1906-07	531.06	442.55
Adjuntas.....	10,000.00	5,000.00	.....do.....	1907-08	500.00	249.99
Cabo Rojo.....	9,000.00	4,500.00	July 1, 1902	1909-10	900.00	850.00
Sabana Grande.....	9,500.00	4,750.00	July 1, 1903	1913-14	225.00	100.31
Bayamon.....	9,000.00	4,500.00		1907-08		
Yabucoa.....	13,000.00	6,500.00	July 1, 1904	1909-10		
Juana Diaz.....	12,000.00	8,000.00	July 1, 1903	1907-08	800.00	522.70
Anasco.....	9,500.00	4,750.00	.....do.....	1908-09	395.83	263.88
Patillas.....	3,000.00					
Las Marias.....	10,000.00	5,000.00	July 1, 1903	1907-08	500.00	225.80
Rio Piedras.....	13,000.00	6,500.00	.....do.....	1908-09	550.00	330.79
Maricao.....	10,000.00	5,000.00	.....do.....	1907-08	500.00	160.26
Lajas.....	7,500.00	2,500.00	.....do.....	1907-08	250.00	131.58
Rio Grande.....	319.50					
Arecibo Industrial.....	3,757.00	1,878.50	July 1, 1904	1908-09	259.96	
Total.....						5,662.99

EXHIBIT C.

General fund, disbursements.

Period.	Erection of buildings.	Salaries.	Traveling.	Fire insurance.	Examination title.	Contingent expenses.	Total.
Jan. 1 to June 30, 1901....	\$15,462.97	\$1,487.85	\$549.32	\$77.20	\$155.00	\$133.45	\$17,865.79
July 1, 1901, to June 30, 1902.....	140,587.27	9,319.88	1,706.94	889.48	130.00	1,923.13	154,556.69
July 1, 1902, to June 30, 1903.....	23,770.59	5,874.19	847.47	535.13		1,839.55	32,866.93
July 1 to Dec. 31, 1903.....	8,698.00	4,046.95	626.98			387.49	13,759.42
Total.....	a 188,518.83	20,728.87	3,730.71	1,501.81	285.00	4,283.61	219,048.83

a See appendix.

January 1, 1904.

Town.	Contract price.	Extra.	Total.
Curabo.....	\$1,795.00		\$1,795.00
Carolina.....	1,650.00	\$15.00	1,665.00
Cabe Rojo.....	1,538.17		1,538.17
Coamo.....	8,408.90		8,408.90
Humacao.....	8,950.00		8,950.00
Aguidilla.....	8,283.90		8,283.90
Cuayama.....	9,350.00		9,350.00
Caguas.....	8,850.00	85.00	8,935.00
Las Piedras.....	1,835.00	15.00	1,850.00
Toa Alta.....	1,690.00	15.00	1,705.00
Yauco.....	7,196.70	1,007.19	6,208.89
Ponce.....	1,750.00	15.00	1,765.00
Quebradillas.....	1,675.00	15.00	1,690.00
San German.....	7,383.30		7,383.30
Mayaguez.....	9,325.00	a 6,303.40	15,628.40
Fajarde.....	16,000.00		16,000.00
Manati.....	8,350.00		8,350.00
Arecibo.....	9,890.00	44.00	9,934.00
Añasco.....	1,590.00	15.00	1,605.00
Sabana Grande.....	1,641.00	15.00	1,656.00
Lares.....	5,700.00	35.70	5,735.70
Bayamon.....	1,650.00	15.00	1,665.00

a First site, \$465.05; second site, \$2,597.20.

January 1, 1904—Continued.

Town.	Contract price.	Extra.	Total,
Lajes	1,683.00	10.00	1,693.00
Rio Grande	1,719.00	20.00	1,739.00
Utua de	1,050.00	20.00	1,070.00
Rio Piedras	1,600.00	.....	1,600.00
San Sebastian	1,730.00	.....	1,730.00
Juncos	1,550.00	225.00	1,775.00
Juana Dias	3,369.00	.....	3,369.00
Penuelas	3,700.00	.....	3,700.00
Las Marias	1,770.00	.....	1,770.00
Aibonite	8,150.00	450.00	8,600.00
Cayey	8,150.00	450.00	8,600.00
Bayamon	7,294.80	579.27	7,874.07
Barranquitas	1,300.00	.....	1,300.00
Arroyo	1,800.00	.....	1,800.00
Mayaguez No. 1	1,250.00	225.00	1,475.00
Mayaguez No. 2	1,475.00	175.00	1,650.00
Camuy	1,375.00	225.00	1,600.00
Utua de	2,198.00	250.00	2,448.00
Aguadillas	1,500.00	175.00	^a 1,525.00
Barros (day labor) .....	.....	.....	1,113.50
Total .....	.....	.....	188,518.83

^a\$150 still due the contractor.

EXHIBIT D.

Normal school group, August 1, 1901, to June 30, 1903.

Land	\$3,000.00	
Normal school building contract	\$24,545.00	
Salary, inspector	970.30	
Travel, inspector between Rio Piedras and San Juan	21.72	
Subsequent miscellaneous work and contingent expenses ..	6,462.98	
	32,000.00	
Principal's dwelling		\$35,000.00
Model school building contract	14,817.00	4,000.00
Subsequent miscellaneous work and contingent expenses ..	2,183.00	
	17,000.00	
		\$56,000.00
Roadways and approaches		2,000.00
Total		58,000.00

EXHIBIT E.

Disbursements, specific schoolhouses, January 1 to December 31, 1903.

Municipality.	Paid on contract.	Paid on supplemental contract.	Balance due on contract.	Balance due on supplemental contract.
Cabo Rojo	\$8,699.00	.....	.....	.....
Ponce	^a 1,599.99	.....	(^b)	.....
	^c 21,450.00	^d \$603.46	\$9,656.00	.....
Rio Grande	9,935.00	65.00	.....	.....
San Sebastian	8,950.00	.....	.....	.....
Adjuntas	9,485.00	405.50	.....	.....
Sabana Grande	8,908.63	.....	.....	\$250.00
Yauco	6,741.93	.....	1,355.07	409.67
Arceibo	900.00	.....	2,857.00	.....
Añasco .....	.....	.....	7,349.00	.....
Total	76,669.55	1,073.96	21,211.07	659.67

^a Land, Cantera School.^b Contract, Cantera School.^c Contracts, Industrial School.^d Of the balance on allotments of \$18,845.84, \$15,245.97 corresponds to Ponce schoolhouse, for which a contract has not been let.

Disbursements, specific schoolhouses, January 1 to December 31, 1903—Continued.

Municipality.	Charged for salaries.	Charged for travel.	Charged for contin- gent ex- penses.	Balance allotment.	Total.
Cabo Rojo	\$216.22	\$15.79	\$4.00	\$64.99	\$9,000.00
Ponce	386.78	64.60		15,245.77	49,000.00
Rio Grande	300.05	19.45			10,319.50
San Sebastian	36.53	7.87	4.60	501.01	9,500.00
Adjuntas	13.26	9.25	4.00	82.99	10,000.00
Sabana Grande	34.62			306.75	9,500.00
Yauco				493.33	9,000.00
Arecibo					3,757.00
Añasco				2,151.00	9,500.00
All other allotments (no contracts let)				89,500.00	89,500.00
Total	987.45	116.36	12.60	108,345.84	209,076.50

RECAPITULATION.

Total allotments	\$209,076.50
Allotments, no contract let—	
Carolina	\$12,000.00
Bayamon	9,000.00
Yabucoa	13,000.00
Juana Diaz	12,000.00
Patillas	3,000.00
Las Marias	10,000.00
Rio Piedras	13,000.00
Maricao	10,000.00
Lajas	7,500.00
	89,500.00
Balance	\$119,576.50
Due on contracts	21,211.07
Due on supplemental contracts	659.67
On allotments	18,845.84
	40,716.58
	78,859.92
Disbursements:	
Contracts	76,669.55
Supplemental contracts	1,073.96
Charged for salaries	987.45
Charged for travel	116.36
Charged for contingent expenses	12.60
	78,859.92

List of school buildings in the order in which they were completed.

GRADED.

Place.	Name.	Date of completion.	Amount.
		1901.	
Caguas	Lincoln	July 13	\$8,935.00
Guayama	Washington	Sept. 4	9,350.00
Coamo	Franklin	Sept. 14	8,408.90
Yauco	Columbus	Sept. 28	7,896.70
Aguadilla	Lafayette	Oct. 19	8,283.90
San German	Longfellow	Oct. 19	7,383.30
Humacao	Ponce de Leon	Oct. 25	8,950.00
Arecibo	Jefferson	Dec. 12	9,890.00
		1902.	
Manatí	Grant	Feb. 2	8,350.00
Mayaguez	Farragut	Mar. 3	9,500.00
Lares	Clay	Mar. 31	5,700.00
Peñuelas	Webster	Apr. 12	3,700.00
Juana Diaz	Hayes	Apr. 12	3,369.00
Fajardo	Columbia	June 24	16,000.00
Bayamón	John Marshall	Oct. 4	8,219.07
Aibonito	Brumbaugh	Oct. 23	8,600.00
Cayey	Benjamin Harrison	Oct. 23	8,600.00
		1903.	
Rio Piedras	Model School	Jan. 16	14,817.00
Cabo Rojo	J. L. M. Curry	May 9	8,699.00
Sabana Grande	J. F. Cooper	Aug. —	9,170.00
Rio Grande	Bancroft	Sept. 12	10,000.00
San Sebastian	Whittier	Oct. 12	(8,975.00?)
Adjuntas	Irving	Nov. 12	10,130.50
Ponce	Roosevelt Industrial	Dec. 18	22,053.46
Guanica	Garfield	Dec. 25	8,496.67

Disbursements, specific schoolhouses, January 1 to December 31, 1903—Continued.

RURAL.

Place.	Name.	Date of completion.	Amount.
		1901.	
Carolina.....	Columbus.....	Apr. 6	\$1,675.00
Gurabo.....	Lafayette.....	Apr. 27	1,795.00
Las Piedras.....	Jefferson.....	May 22	1,850.00
Toa Alta.....	Lincoln.....	June 10	1,705.00
Cabo Rojo.....	Garfield.....	June 14	1,538.17
Ponce.....	McKinley.....	July 19	1,765.00
Quebradillas.....	Horace Mann.....	July 21	1,690.00
Arroyo.....	Prescott.....	Sept. 2	1,800.00
Añasco.....	Ponce de León.....	Sept. 18	1,590.00
Bayamón.....	Peabody.....	Sept. 27	1,650.00
Río Piedras.....	Whittier.....	Sept. 28	1,600.00
Río Grande.....	Jackson.....	do.....	1,719.00
Sabana Grande.....	Washington.....	do.....	1,641.00
San Sebastian.....	Franklin.....	do.....	1,720.00
Lajas.....	Hamilton.....	Oct. 5	1,683.00
		1902.	
Utua.....	Armstrong.....	Mar. 10	1,070.00
Las Marias.....	Greeley.....	Mar. 13	1,770.00
Juncos.....	Irving.....	Mar. 15	1,550.00
Barros.....	Adams.....	June 7	1,568.15
Barranquitas.....	Roosevelt.....	June 27	1,300.00
		1903.	
Camuy.....	Emerson.....	July 8	1,805.00
Mayaguez (Algarrobo).....	Grant.....	July 21	1,475.00
Aguadilla.....	Adams.....	Nov. 10	1,675.00
Mayaguez (Arriba).....	S. F. B. Morse.....	Dec. 15	1,650.00
Utua.....	Agassiz.....	Dec. 22	2,448.00

Names of school buildings constructed by the Department of Education.

GRADED.

Name.	Town.	Name.	Town.
Bancroft.....	Río Grande.	Hayes.....	Juana Diaz.
Brumbaugh.....	Aibonito.	Irving.....	Adjuntas.
Clay.....	Lares.	Jefferson.....	Arecibo.
Columbia.....	Ejardo.	Lafayette.....	Aguadilla.
Columbus.....	Yauco.	Ponce de León.....	Humacao.
Cooper, J. F.....	Sabana Grande.	Lincoln.....	Caguas.
Curry, J. L. M.....	Cabo Rojo.	Longfellow.....	San German.
Farragut.....	Mayaguez.	Marshall, John.....	Bayamón.
Franklin.....	Coamo.	Roosevelt Industrial.....	Ponce.
Garfield.....	Guanica.	Washington.....	Guayama.
Grant.....	Manatí.	Webster.....	Peñuelas.
Harrison, Benjamin.....	Caye.	Whittier.....	San Sebastian.

RURAL.

Adams.....	Aguadilla.	Jefferson.....	Las Piedras.
Adams.....	Barros.	Lafayette.....	Gurabo.
Agassiz.....	Utua.	Lincoln.....	Toa Alta.
Armstrong.....	Utua.	León, Ponce de.....	Añasco.
Columbus.....	Carolina.	Mann, Horace.....	Quebradillas.
Emerson.....	Camuy.	McKinley.....	Ponce.
Franklin.....	San Sebastian.	Morse, S. F. B.....	Mayaguez (Arriba).
Garfield.....	Cabo Rojo.	Peabody.....	Bayamón.
Grant.....	Mayaguez (Algarrobo).	Prescott.....	Arroyo.
Greeley.....	Las Marias.	Roosevelt.....	Barranquitas.
Hamilton.....	Lajas.	Washington.....	Sabana Grande.
Irving.....	Juncos.	Whittier.....	Río Piedras.
Jackson.....	Río Grande.		

EXHIBIT II.

REPORTS OF DISTRICT SCHOOL SUPERINTENDENTS.

SCHOOL DISTRICT No. 1.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF DISTRICT SUPERINTENDENT,
San Juan, P. R., June 1, 1904.

SIR: I have the honor to submit the annual report for the school district of San Juan.

On September 4, 1903, I took charge of this, the first school district of the island, composed of the 3 municipalities of San Juan, Rio Piedras, and Carolina. The town of Trujillo Alto also forms a part of this district, having been annexed to the municipality of Carolina. This municipality is larger in point of territory than the two others combined, and last year, with the municipality of Rio Grande, formed a separate district. I have found the size of the district and the large number of schools under my direction very serious obstacles in the effort to discharge thoroughly the many and varied duties of the position.

The new Emerson School, on Cruz street, San Juan, of 9 rooms, including the principal's office, a kindergarten, 2 first, 2 second, and 1 each of the third, fourth, and fifth grades, was opened on time, fully equipped. Each room is furnished with modern pupils' desks, teacher's desk, chairs, bookcase, wastebasket, call bell, and extensive blackboard space. Filters, washstands, and modern latrines are on each floor. Of the regular teachers in this school 3, including the principal, are Porto Ricans; the other 4 are Americans. Three changes in the corps of teachers of this school were made during the year, and the school is now in charge of thoroughly competent teachers in all the grades. Instruction in all branches is given in English with the exception of a daily half-hour Spanish lesson in the upper grades. It was at first thought that only two-thirds of the regular year's work could be accomplished because of the fact that the school would be passing through the experimental stage, but I am glad to state that fully as much ground has been covered during the year in this school as in the Spanish schools. It is hoped that after another year a class may be sent annually to the Central High School of Porto Rico at San Juan.

The new graded school for the town of Rio Piedras will shortly be in course of construction. The contract has been let and it is expected that the building will be ready for occupancy at the time of the opening of the next school year. The lot on which the building is to be erected is situated in Brumbaugh street, near the normal school, and cost \$350. The building will contain 6 rooms besides the principal's office, and will cost about \$11,000.

I regret that no progress can be reported in the matter of securing a new graded school building for the town of Carolina. A large corner lot, situated one square west of the plaza and constituting a satisfactory site for the building, was agreed upon by the school board as a suitable location for the school, but in spite of the fact that the lot is the property of the municipality no action has yet been taken even looking toward the transfer of same to the people of Porto Rico. The department of education has offered the municipality advantageous terms in the matter of securing the new building, but the municipality has neglected to take any action although repeatedly urged to do so.

The agricultural school at Carolina has been in operation during the entire school year. The usual amount of hard work has been done by the teacher and his pupils, with the usual result—a very small return for the labor and expense involved. During the latter part of the year the greater part of the land has been planted in sugar cane, the crop when cut to be sold to a neighboring plantation. The crop will probably be worth about \$30, if satisfactory. A change was recently made in the daily programme, whereby instruction in the common branches is given during a four-hour session in the morning, from 8 to 12 and a class in agricultural work is held daily from 4 to 6 in the afternoon, only those pupils who are interested in the work attending. This arrangement is giving more satisfactory results than the former manner of conducting the school.

The rural school in the Marina, San Juan, was moved from its old quarters to the second story of a substantial building situated on a street corner facing the bay. Accommodations were found to be ample for another school on the same

floor, and accordingly another was opened, thereby allowing a system of grading to be introduced in these two schools. They are both well equipped and are now the best rural schools in this district.

As the condition of the larger part of the rural schools in the municipality of Rio Piedras left much to be desired, a tentative plan for the improvement of those conditions was proposed to the school board and unanimously approved. This proposition involves the securing, by donation if possible, of 1 cuerda of suitable land in a suitable place situated in each barrio where the school facilities are to be improved, and the erection thereon of a building to be especially constructed for use as a school at a cost not to exceed \$250, the title to both the land and the building to be registered in the name of the people of Porto Rico, under condition that the property be devoted permanently and solely to school purposes and be free of all tax. The plan further involves the furnishing of these schools with suitable equipment, including desks and seats for pupils, tables and chairs for teachers, blackboard facilities, bookcases, clocks, bells, filters, and water-closets. Sites have been secured for four such schools, and it is planned to construct the buildings during the vacation months. The plans and specifications will be prepared by the school board and submitted to the commissioner of education for approval. The contract will be let after having been approved by the said commissioner, and the buildings, when completed, will be inspected by the department of education. The plan further includes the securing of financial assistance from the commissioner of education in the sum of \$1,000, or \$250 for each one of the four schools which it is proposed to erect. Of this amount the department of education will contribute one half toward the establishment of these schools, the school board to return the other half within two years without interest. In this way the school board practically becomes the owner of the school property at a nominal cost, not exceeding the amount that would otherwise be paid in rent during the same length of time.

Owing to the great difference in class standing of the various groups of the same grade in all parts of the district, it was found necessary to regrade all the pupils in the graded schools. To this end examination questions in English, arithmetic, and language (the last-named subject including questions in nature study and biography in the lower grades, geography and history in the upper) were prepared for all graded schools except the first, and a general examination was held on January 19. All the papers were corrected by the teachers and afterwards reviewed and recorrected by the superintendent. A list of the failures and of the doubtful cases in each grade was then made, and the work of grading the pupils was attended to in all cases by the superintendent in person. The pupils on the doubtful list were reexamined personally in order to ascertain exactly in which grades they belonged. In this manner about 3,000 pupils were reggraded, the work requiring four weeks. A great improvement was observed in the work of all the graded schools after these changes had been effected.

A meeting of all the teachers of the district was held in San Juan on December 19, in the Lincoln School. The subjects composing the first group of the course of study now in use, and including reading, writing, composition, spelling, memory work, and English, were discussed. Papers on these subjects were read by several teachers, and Don Manuel Fernández Juncos delivered a very interesting address.

Another teachers' conference was held in San Juan on March 17 and 18, in accordance with instructions issued by the department of education. Mr. Paul G. Miller, principal of the Insular Normal School, presided at the four day sessions as director. A long programme, covering a wide range of pedagogical subjects, was prepared for the day sessions and carried out satisfactorily. The teachers took part in thorough discussions of the subjects introduced, and the free expression of opinion and relation of experiences were of considerable benefit to all. An evening session of purely literary character was held in Lincoln School and thoroughly enjoyed by those present. Two other entertainments given the same evening in the capital interfered greatly with the attendance.

At various times during the school year principals and graded teachers were allowed to visit the practice school at Rio Piedras and grades corresponding to their own in the graded schools, for the purpose of noting conditions and observing methods which might be introduced into their own work with success. The English teachers also visited the different schools from time to time with the same object.

All teachers have been required to prepare daily a written outline of the lesson to be given in each subject on the following day. These outlines are kept in blank books and serve as a means for the intelligent direction of the various classes on the part of the teacher during the daily sessions. They are also valuable for purposes of reference and as a summary of the work accomplished during the year.

An effort has been made to make the teaching of English as uniform as possible in the various grades throughout the district. This work is still far from complete. It is being directed on the basis that the ability to speak the language is of greatest importance to the pupils in the study of English. Following this principle, a simple course of study for the eight grades was prepared, giving to conversational work the larger part of the time in such a manner that reading and writing might be taught in connection with the conversation and correlated with it. This course will be developed further and the work for each term of the coming year will be definitely outlined for each grade. Owing to the fact that the course was in the nature of an innovation, the average results obtained so far have not shown it to be an unqualified success, but with the more carefully prepared outline and directions, which we shall have next year, the teachers will be enabled to follow the course more intelligently and we may expect more gratifying results. I may add here, however, that in a few cases the teacher has directed her work in all respects exactly according to the prescribed outline, and in these few cases the results have been highly satisfactory.

Doctor Brumbaugh's Standard Readers have been in use to a limited extent in all the schools. The text is quite unsatisfactory as a help in teaching English here, and on that account as many supplementary readers as could be secured have been used. We shall have to await the publication of a series of readers specially prepared for the teaching of English in Porto Rico if we wish to employ books in this work.

Mr. and Mrs. H. A. C. Hines, of New York City, have shown a deep and kindly interest in the public school work here, and it was recently my pleasure to acknowledge particular gratitude for a handsome banner presented by them to the San Juan graded schools. This banner will be awarded to the graded school having made most satisfactory progress in the study of the English language during the present school year, and will be contested for on the same basis during subsequent years.

The work in drawing and music has been confined practically to the graded schools of San Juan, the capital being the only town in the district provided with special teachers of these subjects. The results obtained in both of these branches in San Juan have been surprisingly good. The two teachers having this special work in charge are thoroughly competent and have labored hard in the interest of the pupils. Many of the children have shown real talent for drawing, and their work in this subject clearly demonstrates the advisability of arranging for the further development of this part of the school curriculum. The average results have been more than satisfactory, considering the many difficulties which were encountered.

In music, singing in two parts from the chart has been introduced as early in the course as the second year. The pupils have acquired surprising facility in sight reading, and the progress has been uniform in the several grades. Owing to the large number of schools, the teachers of drawing and music have been unable to visit each room more than once a week, being obliged to intrust the work during the remainder of the week to the regular graded teachers, who have followed directions, in the majority of cases, with careful interest.

A series of 42 circular letters, printed on the mimeograph and treating of various phases of the school work, was prepared and sent out during the year for the purpose of assisting the teachers. Besides these circulars, daily programmes for the rural schools were arranged and printed, in order to make the work in these outlying schools more nearly uniform. A model outline for daily preparation of work by the teacher was also prepared and a copy sent to each teacher in the district. Other letters, also designed to be of help to the teachers, were sent out from time to time.

The chief school holidays were fittingly celebrated in all the schools of the district, and the teachers exerted themselves to make the several occasions both interesting and profitable in order that the pupils might remember them as pleasant events in their school life. The discovery of Porto Rico by Columbus, Thanksgiving Day, Arbor Day, Christmas, Washington's Birthday, and Memorial Day were appropriately observed.

According to the census of 1889 the population of the three municipalities of San Juan, Rio Piedras, and Carolina, which compose this district, is 32,000, 14,000, and 19,000, respectively, or 65,000 for the entire school district. Of this number it is estimated that 20,000 are children of school age, yet there are enrolled in the public schools only 4,617, or 23 per cent, of the school population of the district. The average daily attendance in all the schools of the district is 3,653, meaning a daily absence of nearly 1,000 pupils, the average daily per cent of attendance being 79.49. The entire number of teachers in the district is 109, the average number of pupils per teacher being 43.

The school board of San Juan has resolved to support a force of 4 truant officers during the coming year for the purpose of increasing both the enrollment and the daily attendance in the 6 graded and 3 rural schools under its jurisdiction. These officers will be provided with lists of all the pupils enrolled, with names and addresses of parents; they will visit the homes of all absent pupils in order to ascertain the cause of absence in each case, and will be authorized to notify and appear before the proper legal authorities as complainants in case the absence be not justified.

This school board at the present writing is having telephones installed in the office of the superintendent and in the 6 graded schools of the capital. This connection, in addition to being a great convenience for ordinary purposes of communication, will also serve as an efficient aid in supplementing and simplifying the work of the truant officers.

It is expected that these officers will be able to increase the enrollment in the upper grades. The majority of pupils are withdrawn from school before reaching the third grade, and this fact constitutes one of the most serious problems in our educational work. Of the 4,617 pupils enrolled in this district 2,455 are in the first grade, 1,093 in the second, 510 in the third, 280 in the fourth, 151 in the fifth, 69 in the sixth, 29 in the seventh, and 30 in the eighth. These figures tell a very disquieting story, but we hope to improve these conditions with the increased facilities which we shall have at our disposal next year.

Respectfully submitted.

E. N. CLOPPER,
Superintendent of Schools.

The COMMISSIONER OF EDUCATION, *San Juan, P. R.*

SCHOOL DISTRICT No. 2.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF DISTRICT SUPERINTENDENT,
Fajardo, May 31, 1904.

SIR: I have the honor to submit herewith my report for the academic year 1903-4:

Up to September, 1903, this district comprised the municipalities of Fajardo and Naguabo, together with the adjacent islands of Vieques and Culebra. These latter being of difficult access from the main island were then detached to form a separate district, and the municipality of Rio Grande was added in their stead. This resulted in a contiguous but much larger territory, counting some 60 schools under as many teachers.

My first impression on assuming charge of this district was an unfavorable one, owing chiefly to the condition in which I found the rural schoolhouses. The buildings were, many of them, too small and but partially provided with the necessary furniture. There were not enough seats and desks to accommodate the regular number of pupils. Clocks and drinking apparatus were entirely lacking. At least one-half of the schools were without suitable cases for the storing of books and material, and in all of them the blackboard cloth was simply nailed to the walls and not mounted on frames as is the case in most of the districts.

When I brought these matters to the attention of the several school boards, I was made aware that these corporations had not the funds wherewith to meet my desires. Their budget which had been approved months before had made no allowance whatever for carrying out these necessary improvements. This was in the nature of a surprise inasmuch as two out of the three municipalities were financially prosperous and could have met the demands of the school boards for a somewhat larger appropriation without any difficulty. Much to

my regret my plans for a general reform of the schools had to be deferred to another year, and I had to content myself with carrying out only such improvements as were absolutely necessary and which the finances of the boards warranted me to undertake. With the limited means at hand we were able to supply the schools with cheap clocks, water jars, and bookcases, while enough rude benches and desks were constructed to accommodate 50 pupils in each one of the schools. Other important matters, such as the mounting of blackboards on frames and the securing of better but more expensive buildings, had to be deferred to some other time.

These circumstances are now somewhat changed, owing to a little more provision on the part of the school boards, and owing also to the enacting of certain legislation favorable to these bodies. Unless unexpected obstacles present themselves, no schools will be opened in this district next fall unless they have been equipped in full accordance with the desires of the department. It is further proposed that all buildings to be used for schools be rented under contract, the owners binding themselves to carry out any repairs that may be indicated to them or else to forfeit their rent to the school board.

The 6-room schoolhouse recently erected by the department at Rio Grande has been used throughout the year. It has proven a splendid structure. That only the best of materials were used and that the work of construction was carefully attended to is attested by the fact that not the slightest defect has been noted up to the present day.

The 9-room building of the Fajardo High and Graded School erected a few years ago is largely in need of serious repairs. The woodwork shows slight imperfections, while the roof leaks considerably in spite of the fact that it has been painted twice in the course of the present year. It is my opinion that it will have to be renewed at an early date, as it has been worn through by oxidation. The school board, in accordance with an act of the legislature approved March 10, 1904, has applied to the executive council for a loan to attend to the reparation of this edifice.

I am glad of an opportunity to state that the department may count in its efforts to improve local conditions with the unwavering support of the school boards of Fajardo and Rio Grande. Both of these organizations are composed of men who are noted for their intelligence and public spirit, who have the true interest of the schools at heart, and who can not be swayed by either political or personal bias in the discharge of their official duties. My relations with them have been marked by the most perfect harmony and a corresponding desire to work hand in hand for the betterment of our public school system. Their administration of public funds has been scrupulous to the highest degree, enabling me to introduce several improvements, which it would have been impossible to carry out with boards less economical or less alive to their obligations.

The administration of the Naguabo school board has been in marked contrast to that of the above-mentioned bodies. I am loath to speak of its record. Suffice it to say that its men have displayed a complete indifference to the welfare of our schools, that they have repeatedly failed to fulfill their duty, and that on those rare occasions in which they did try to carry out the mandates of the law they have only done so in response to some personal interest or to much urging on the part of the officers of the department. They did not decide to keep strict accounts of their financial transactions until late in the course of the present year.

It is to be hoped that the approaching elections will give to Naguabo a school board more interested in the welfare of the schools.

The territory comprising this district had 57 schools last year. There are 60 at present, an increase of but 3. While there has been but little progress in the manner of schools, and the improvement in the furniture and equipment of the same has not been as radical as desired, the character of our schools has received a decided impetus for the better. This is especially noticeable in the enrollment and attendance. Of the 60 schools of this district, 30 actually have an enrollment of 55 pupils or over. Of the remainder, 22 have an enrollment ranging from 50 to 55. There are thus but 8 schools with less than 50 scholars each. They are in every case the highest grades of the several town schools, and their small enrollment is due to the fact that the number of pupils who could be admitted to them is necessarily limited. The total enrollment of the district last month was 3,161 pupils, giving an average of 52.5 pupils to each school. These results have been obtained by holding each teacher personally

responsible for any falling off in his attendance and by insisting upon the fact that the enrollment and the attendance of any school are, generally speaking, in direct proportion to the efficiency of the teacher. There was a perceptible falling off in the attendance during the spring months owing to an epidemic of varioloid, which prevailed throughout the district.

The vital element of the schools is of course the teacher. Good schools are possible without luxurious furniture, but no school is good without a good teacher. While I am compelled to state that the number of competent, up-to-date teachers is a limited one, that many of them have little knowledge of the better and most effective methods of teaching, I can not but do justice to the enthusiasm they display for their profession and the scrupulous care with which the great number of them carry out their instructions. What they need above everything is better direction in their efforts. It is thought that the policy of the department to send a certain number of them to the Normal School each term is bound, if persevered in for a few years, to effect a general transformation of our schools. The change noted in the work of two or three teachers of this district who have been able to avail themselves of this opportunity to attend the Normal School is little short of marvelous.

I wish to point out here some of the particulars in which the teachers of this district have shown a special weakness. While no little progress has been achieved in the direction of remedying these defects during the present year, it is felt that the attention of the superintendent will have to dwell on these defects for much time to come ere he can entirely do away with them.

Perhaps the worst defect of our teachers is their addiction to routine or, in other words, text teaching. There was a prevalent idea in this island a short time ago that as soon as a young man or woman had acquired a teacher's certificate he or she was qualified ipso facto to teach any subject or any branch of human knowledge for the remaining days of his or her life. The certificate converted them into perennial fountains of wisdom, able to meet and to cope with any emergency. This strange notion is not entirely dead, and teachers are still occasionally found who have to be reminded that great benefits may be derived from a little amount of daily study. The routine of assigning so many pages of the text as a lesson and demanding that the pupils recite the same more or less verbally had become second nature to so many teachers that the necessity of their preparing themselves for their daily work had never occurred to them. The ensuing routine, the lifeless teaching, and the undisciplined rooms had become the characteristics of the island schools. It is in order to remedy this state of things that all or nearly all of the superintendents have required during the last two or three years that the teachers write out a daily outline of their work. This practice unites so many advantages that the teachers themselves at once recognized its value, although a few of them complained that it obliged them to do some unnecessary labor and absorbed an amount of time that they might more advantageously devote to the study of the English language. It was thought best to enforce this daily written preparation, however, the more so as it was noted that the teachers who carried it out most carefully were those who made the quickest progress in English. This practice, besides obliging the teachers to think out their daily work, to put brain and intelligence in the place of routine, also made it much easier for the superintendent to guide the teachers' efforts, to point out their mistakes, and to see that the provisions of the course of study were carried out faithfully and uniformly.

Another weak point of our schools is the lack of realization on the part of many teachers of the moral value of cleanliness and the importance of keeping a neat and attractive room and caring properly for the equipment and the furniture of the same. Not only is personal cleanliness often neglected, but pupils are permitted to handle their books with soiled hands, to write over them, to throw them about, with the result that these books are in an unserviceable state after one or two years' use. The teachers' attention has been called to this point repeatedly, but never with the result that I had a right to expect. I believe that the time has come to devise some way in which the teachers may be held responsible for the willful neglect of books which is now taking place. A system of checking the date on which the book was issued and the condition in which it was returned by the teacher at the close of the year might result in a great saving of yearly expenses. The same neglect is noted with regard to the furniture. Pupils are allowed to cut or to otherwise misuse the desks. Some of these are left to deteriorate or even to fall apart, when a little timely attention could have saved them. Such neglect reflects seriously on the character of a teacher, and no occasion has been permitted to pass to

remind anyone found guilty in that respect of the full nature and extent of his obligations.

Comparatively few of the teachers of this district have displayed much taste in the adornment of their rooms. It is intended to give special attention to this detail next year.

Another drawback is a lack of appreciation on the part of the teachers of the value of time. Although much progress has been made in this respect, the fact remains that tardiness is still one of the main evils of our schools, especially in the rural districts. How much this fault depends on the teachers is proven by the following instance: During the early part of the year I noticed that one-half of the pupils of the Canovanas rural schools were wont to arrive tardy. On complaining to the teachers of this state of things I was told that this was an inveterate custom of the barrio and that there was no means to correct the evil. This being so, I thought that the case justified me in sending a complaint to the general superintendent against the teachers in question. An admonition from this officer worked marvels, and I was not a little surprised some seven or eight weeks after when the teachers told me that the impossible had been done, that not only had the cases of tardiness almost disappeared, but that the combined enrollment of the two schools had risen from 93 to 117, with a corresponding improvement in the daily attendance. I am glad to state in this connection that the graded schools of Fajardo, Rio Grande, and Naguabo have shown a similar progress in the promptitude and regularity of their attendance.

Many teachers have a wrong idea of the nature of school discipline. Their efforts are generally directed toward securing a sepulchral silence on the part of their pupils. Their attention has repeatedly been called to the fact that discipline was not to be obtained by prohibitive measures, that their aim ought to be first and last to interest their pupils, to make them love their work, to keep them occupied, and to leave discipline to take care of itself. I make no mention of the time-honored custom of loud studying, which has forever disappeared from our schools. An old defect which still endures is the tendency of many teachers to limit their attention to the pupil actually reciting, to the entire neglect of the rest of the class.

I beg to say a few words with regard to the already much-discussed question of school principals. Each year adds new weight to the contention that the extra money paid to these teachers is a clear loss in the great majority of cases. The only principal in this district was at the head of the Fajardo High and Graded School. This teacher received \$100 a month. Whether the extra \$50 were paid to him for his particularly good work as a teacher or for his attending to his special duties as set forth in the rules and regulations of the department, a doubt may be raised whether the money could not have been employed to better profit in opening an additional graded school in Fajardo. The special duties of this teacher with regard to the grading of the schools, the drafting of the several teachers' programmes, the correction of the roll books and term reports, the care of the building and of the adjoining grounds, and, more important still, the supervision of the work of the different grades, all these were either totally neglected by him or done in a haphazard way. The janitor service was especially incompetent. Two strong able-bodied men were allowed to idle about all day long while weeds overran the grounds and dust covered the schoolhouse walls. The interference of the superintendent became necessary on many occasions, while on as many others it was not exerted in order not to produce an undue amount of friction.

The length with which I have dwelt on certain faults of the teachers might seem to indicate that little progress has been made during the present school year. Such an assumption would be far from the truth. While our teachers possess many serious faults they also possess many redeeming virtues. From a general point of view the work of the graded schools was remarkably satisfactory. If I were to make a summary classification of them, I should say that 18 of them did excellent work, that in 6 instances their work might be classified as good, and in 2 instances only could it be classified as fair or unsatisfactory. Thus it is that the towns of Fajardo and Rio Grande possess to-day a system of graded schools which could justly excite the envy of many towns of equal size in the States. I must add that the standing of the rural schools suffers in comparison with that of the town schools. Possibly one-third of the former have been in charge of antiquated teachers, men of the "get on as easy as you can" type, who were either unable or unwilling to keep up with the rapid pace of progress set by the majority of their companions. Not only have these men been dead weights on our hands, but they have also set a pernicious

example to the other teachers. It is possible that their work would have been improved had I been able to visit their schools with greater frequency. Be that as it may, every effort will be made next year to rid this district of teachers who must needs feel that the eye of the superintendent is over them in order to put forth their best efforts.

The teachers have realized much progress in the study of the English language. A noteworthy instance of the interest they are taking in all matters pertaining to their advancement is the regularity with which they have attended the classes given for their benefit by the American teachers. With the exception of one rural teacher, whose school lay at a distance of some 10 miles from town, over bad roads and dangerous river crossings, all the teachers of the district have attended the classes or informed me of the reasons for their absence whenever sickness or bad weather prevented their coming. I am still ignorant of the success had by the teachers of this district at the recent English examinations. I am building no castles in the air, in view of the fact that the districts of Fajardo and Carolina, to which the territory covered by this district belonged last year, occupied the eighth and seventeenth rank, respectively. I am more than gratified, however, at the thought that two-thirds of the teachers are able to read at sight the texts now used in the schools, that approximately one-half of them are able to carry on a conversation on ordinary topics in English, while there are some 10 teachers who are willing and able to carry on all their work in that language next year.

It is thought that at the present rate of progress, English may be made the official language of the schoolroom within two or three years. It has been my lot to receive many a pleasant surprise on entering certain schools to hear the native teachers carrying on an interesting conversation with their more advanced pupils in English. Much of the effective work done in that direction is traceable to the Manual for Teachers of English, which was issued by the department at the beginning of the year, and which many of the native teachers were given an opportunity to study.

It may be noted incidentally that there is a danger of Spanish being neglected in this enthusiasm for acquiring a knowledge of English. Good spellers of the Castilian tongue are the exception in our schools, and I have before me the reports of the teachers of this district on the recent celebration of Memorial Day, in many of which orthography is conspicuous by its absence.

Two general conferences were held in the district during the course of the year. At both of them the attendance was excellent. The discussions assumed a very practical character. The presence of Mr. L. R. Sawyer at the first and of Mr. A. F. Martinez at the last of these meetings contributed no little to arouse the interest of the teachers and to spur the latter to put forth their best efforts. These conferences were beyond any doubt among the most successful ones which it has been my pleasure to attend in Porto Rico.

The personal benefits I derived from the visit of the above-named gentlemen in the way of practical suggestions showed me the advisability of having such visits made a regular occurrence in the future. As a school superintendent stated in his report last year, there exists too great a diversity in the methods of supervision. Uniformity in this respect is, of course, all important if we desire to attain uniformity of work. Probably the quickest way to obtain both would be the periodical visits of a man who, like the general superintendent, is familiar with all the phases of school work throughout the island.

Two night schools have been working with varying success in this district. Among the many difficulties with which they have had to contend, I may mention the abnormal fluctuation of attendance. The mean duration of a pupil's attendance at these night schools may be given as three or four months. The enrollment was entirely renewed in January, owing to the fact that most of the pupils went to work in the sugar plantations and were unable to continue their studies in consequence. The teacher in charge of the Rio Grande school found it necessary, in order to keep up his attendance, to inaugurate a course of popular lectures. The last session of the week was devoted to the presentation and discussion of interesting topics of an educational nature under the direction of several of the town teachers, who volunteered their aid. By such means the teacher was able to maintain his attendance up to the maximum limit.

I close this report with the statement that this year has witnessed an increased enthusiasm on the part of the public of this district for everything connected with our work. With very few exceptions all our schools have maintained the maximum possible enrollment, while many of them have had a waiting list nearly equal to their enrollment. The celebration of a school holiday or any

unusual occurrence sufficed to arouse the interest and to draw the presence of everybody in town. For instance, Arbor Day was made the occasion of a public festival. Work was stopped and the stores were closed during the day in order to enable everybody to attend the celebration. This remarkable interest on the part of the public is the best witness to the quality of the work that is being done in our schools and to the fact that our teachers are advancing with giant strides on the road to progress and to professional excellence.

Respectfully submitted.

M. A. DUCOUT.

The COMMISSIONER OF EDUCATION, *San Juan, Porto Rico.*

SCHOOL DISTRICT No. 3.

DEPARTMENT OF EDUCATION OF PORTO RICO, OFFICE OF DISTRICT SUPERINTENDENT, *Humacao, May 26, 1904.*

SIR: In accordance with the school laws of the island I have the honor to submit to you my annual report as superintendent of the public schools of district No. 3 for the academic year ending June 17, 1904:

The district under my charge comprises three municipalities, namely: Humacao, which is the superintendent's headquarters; Yabucoa and San Lorenzo, covering an area of 325 square miles with 68,957 inhabitants, of these 12,688 being of school age.

At the beginning of the present year the number of pupils enrolled in the public schools of the district was 2,568, as shown below:

Grade 1	1,592
Grade 2	555
Grade 3	208
Grade 4	125
Grade 5	59
Grade 6	29
Total	2,568

In the course of the year the enrollment has increased considerably, being at present:

Grade 1	1,318
Grade 2	895
Grade 3	357
Grade 4	133
Grade 5	41
Grade 6	55
Grade 7	29
Grade 8	14
Total	2,842

The attendance, due to the unusually long rainy season, and to the several diseases suffered by the children, has not been so satisfactory as I anticipated considering the enthusiasm of the teaching force and the earnest desire to learn shown by almost every boy and girl. Of the 2,842 pupils enrolled only 2,424 (estimated) have been attending school daily, which is about 85 per cent of the total enrollment.

The corps of teachers of the district is as follows:

School.	White.		Colored.		Total.
	Male.	Female.	Male.	Female.	
Principal	2				2
Graded	10	7	3	2	22
Rural	19	8	3		30
English	3	3			6
Agricultural	1				1
Night	2				2
Total	37	18	6	2	63

These 63 teachers are quartered in 8 towns and 29 rural buildings, aggregating a total of 37 schoolhouses with 54 rooms.

The condition of the schoolhouses located in the towns, as well as their furniture, is good; but I regret I can not say as much regarding the rural schoolhouses. These, with the exception of two new agricultural buildings and two other schools, are small straw-thatched shacks, with poor light and ventilation and worse equipment, the only furniture consisting of a few old benches and one or two tables.

Teaching under these circumstances, aggravated by the negligence of some parents and by the lack of good roads, is not an easy task; but the greatest difficulties may be overcome by constant, faithful, work; so we have seen some rural schools in satisfactory condition, every group of the course of studies being taught and all the pupils accomplishing their duties in a most commendable manner.

The work done in the town schools has been, in general, very gratifying. Principals, teachers of English, and grade teachers, as a rule, have made the utmost efforts to raise and maintain the schools at a high grade of efficiency, and almost in every case they have been successful, a good proof of it being the remarkable progress made during the year, as may be noticed after comparing diagrams 1 and 2.

I feel it a bounden duty to devote a few words to the pupils. I always found them obedient, courteous, and willing. They have been working hard throughout the year, showing high spirits and keen interest when performing the tasks assigned by their teachers. The average Porto Rican child is bright and intelligent, although his reasoning powers are not very strong, due, perhaps, to the lack of proper training.

I shall not attempt to describe in detail the work in the schools, this being done in the reports handed in to me by principals and teachers of English, to which I have the honor to refer you; but I shall avail myself of this opportunity to express my opinion on the teaching of the several subjects scheduled in our curriculum.

Language (Spanish) teaching is satisfactory. Our pupils, as a rule, read and spell correctly, write a good hand, and commit to memory very readily selections both in prose and verse. In composition they do not show off so well. They copy the teacher's or the book's words instead of using original language.

In this connection I beg to recommend the adoption of a book for the primary grades similar in character to Arnold's *The Mother Tongue*. A grammar more difficult than Hernández's could be used in the eighth grade. The necessity of books for supplementary reading is also felt, above all in the advanced grades. A few masterpieces of Spanish literature could be studied to great advantage, that pupils may acquire a taste for good, wholesome reading.

English has been taught in the graded schools following the instructions laid down in the manual issued by the department of education, and the progress has been noticeable. In the rural schools, generally, the English learned by pupils amounts to nothing.

The work in numbers has had certain weak points. In the primary grades pupils were expected to do too much. Many times I have seen a 5-year-old child writing millions and even billions on the blackboard, while in the advanced grades I have found the opposite evil. Pupils did not progress as rapidly as desired. But I must say that this has not been the case with every teacher. Many of them worked to my entire satisfaction, their methods being excellent.

One of the recent changes in the courses of study which has a decided effect in cultivating the pupil's power and habit of observation is what is commonly called "nature study." It is a great pity that so large a number of our people "having eyes see not" the beauties of the natural world. Our course of studies is planned to correct this evil by bringing the child into close touch with his environment, awakening his interest, leading him from the abstract to the concrete, and stimulating him to investigate phenomena for himself.

We must admit that to achieve these results is not so easy for teachers who, in most cases, have had neither the advantage of a normal training nor the opportunity of studying good literature on the subject; but I am glad to state that some of them have thoroughly covered the ground required in the course of studies.

The instruction in geography has followed closely the course of study. In the primary grades we have taken the home as starting point, thus beginning with the new and known. Afterwards the leading facts of the geography of the world are studied, and, finally, in later years, to obtain an accurate knowledge, the subject is reviewed from the whole to its parts, without neglecting the teaching of some physical geography.

For the teaching of group 4 of the course of studies I have prepared lately a syllabus assigning a certain number of stories, myths, fables, and biographies to each of the primary grades, and marking the pages to be covered in every book by each of the grammar grades, thus making the teaching of history uniform throughout the district.

I have very little to say about the teaching of art. Pupils know several hymns studied in the song books used in the schools, but no music has been formally taught. Drawing is not in much better condition, although it has been taught very successfully at Yabucoa by Principal Huyke. I think it would be very advantageous to have teachers of music and drawing in the towns, because the young Porto Ricans show excellent aptitude for these studies.

The agricultural work in the schools along the road from Humacao to Juncos has proven a failure. I recommend that the same be discontinued next year at least if it is the department's intention to carry it on according to the plans of this year. The only place where something like a garden may be seen is at the Irving School, San Lorenzo; but in the other schools nothing has been done.

The attendance at the night schools has not been satisfactory at all. Reading writing, and some arithmetic have been taught in them; but pupils do not seem interested in the work, and, of course, their progress not quite satisfactory.

Practically there are no private schools in this district. Three or four old ladies devote their time to teaching a few little boys and girls, but as soon as there are vacant places they come to the public schools, this being a most eloquent proof of the fact that the work done in our schools is duly appreciated by the community.

It is to be regretted that the revenues of the island do not allow the employment of more teachers. Many children are on the waiting list of the schools because there is no room for them, although we have adopted the part-time system in the first grades.

Holidays have been duly celebrated. The exercises held at Humacao and Yabucoa on Arbor Day and Washington's Birthday deserve special mention. Prominent people and patrons of the schools were invited to attend same. Also a school exhibition was held on Arbor Day, showing the work performed in the schools the previous term.

On the 17th and 18th of March we had a teachers' institute, conducted by Miss Huntington, principal of the Practice School at Rio Piedras, who prepared a comprehensive programme covering the salient features of the educational work.

The evening session of the 18th was reserved for a meeting of a general character, to which the public as well as the teachers in attendance at the institute were invited; and Doctor Lindsay, Doctor Ames, and Mr. Augusto Gautier addressed a large audience which was assembled in the main hall of Ponce de Leon School.

The importance of these teachers' institutes is apparent. To them the teachers must look for the inspiration and instruction needed to keep them in the current of educational progress, and through its ministrations the methods of instruction in the district may be unified and improved.

Several rural teachers of this district have attended the Insular Normal School during a term, their substitutes being paid by the department of education. The instruction given these teachers has proven most useful. Their methods are better, and, above all, they have learned how to manage their schools, keeping pupils busy all the time.

I do not doubt that if the practice of sending teachers to the Normal School be continued in the coming years, the teaching force of the island will be greatly bettered, and our schools in the near future will be up to date in every respect.

The school board of Humacao deserves special mention for the kind assistance which it has always given me and for the pains it has taken to better the condition of its schools. Of the other boards I have nothing to say, either good or bad.

I wish to express my appreciation of the faithful, earnest, and efficient services the majority of the teachers rendered in their positions during the present

year. If the public knew what these people are doing to lead the youth on the right path, so that in the future they may know how to perform the duties of good citizenship, the teacher's worth and work would be duly acknowledged.

I also desire to thank the commissioner of education and his corps of assistants for the hearty support and valuable advice they have always accorded me.

Respectfully submitted.

C. A. REICHARD,

Superintendent of Schools, District 3.

The COMMISSIONER OF EDUCATION, *San Juan, P. R.*

SCHOOL DISTRICT No. 4.

DEPARTMENT OF EDUCATION OF PORTO RICO,

OFFICE OF DISTRICT SUPERINTENDENT,

Caguas, P. R., June 1, 1904.

SIR: I have the honor to submit herewith the annual report of the district of Caguas for the school year 1903-4. This district includes the municipalities of Caguas, Cayey, and Aguas Buenas, and in the municipalities of Caguas and Cayey are included the annexed towns of Gurabo and Cidra, respectively. There are now attending school in the district 2,919 children, enrolled in 63 schools, of which 2 are principal, 27 graded, 1 night, and 33 rural. Besides these there are 7 special teachers of English.

These schools are housed in buildings ranging from the new American-built schoolhouses in Caguas and Cayey down to some rural buildings little better than peons' shacks. The rents paid by the school boards for these buildings range from \$40 to \$4 per month, but in every case the annual rental is so large a per cent of the actual value of the building that the board is really paying for the whole building every few years. Especially is this true in the case of rural schools, where \$4 per month or \$48 per year is paid for buildings which cost little more than \$100 to build. As a step toward remedying this state of affairs, I have prepared plans and specifications for rural school buildings, of native lumber and large enough to accommodate 50 American desks each, and which can be erected at a cost of about \$300 each. I hope to perfect a plan by which those municipalities whose finances will allow it may erect these buildings, with the help and direction of the department. In the case of the graded schools the only way seems to be to hire the best buildings obtainable at as low rents as possible, and make the best of the situation until the finances of the boards will allow them to build.

The school boards of the district have on the whole done disinterested and efficient work during the year. Perhaps the best work has been done by the Caguas board, which has spent \$600 on new furniture and made many needed repairs on buildings. The Cayey and Aguas Buenas boards have also done well, although the element of politics is not absent from the former, and the latter has been too much hampered by lack of funds to accomplish much.

The native teachers of the district have, as a rule, worked hard and honestly. Many of them have educational qualifications above the average, and their interest in their work has been extremely encouraging.

The district has been particularly fortunate in having good teachers of English. For the first time since the inauguration of the American system a teacher has been found content to stay one full year in Cidra, and very good work has been done there. In Cayey there have been 3 English teachers during the year. In that town the native teachers have an unusually good command over English, and in all grades arithmetic has been taught with gratifying success, in that language. In the fourth, fifth, and sixth grades history is also taught in English. In Caguas two particularly efficient English teachers have been very successful. Here the seventh and eighth grade work in geography has been done in English. Throughout the district the old translation method has been abandoned, Spanish banished from the English classes, and the work has been largely conversational. With over 82 per cent of all the children in the graded schools enrolled in the first three grades, as is the case here, the child leaves school so young that he will soon forget all the English he has learned if he has not a sufficient conversational knowledge to remember and continue through practice in talking after leaving school.

Even in graded schools the success or failure of the English work largely depends on the native teacher. The progress made in the room of a progressive and friendly teacher having some knowledge of English himself is really remarkable, while an indifferent or hostile native teacher can reduce results to the vanishing point. There is no greater power for good in our schools than the competent English teacher; the young progressive American who is here to work and knows how to teach, whether he knows Spanish or not. These are the teachers who are hastening the day, already to be foreseen, when English will be the common tongue. The classes for native teachers have been carried on in much the same manner as last year, and in general a measure of success has been secured.

During the year there have been celebrated in all the schools the four hundred and tenth anniversary of the discovery of Porto Rico, Arbor Day, Thanksgiving Day, Emancipation Day, Washington's Birthday, and Memorial Day. Although these celebrations constitute the most effective means of arousing interest in the schools, yet it is very difficult to make the necessary preparations without very seriously breaking up the school work for several weeks in advance.

The district has been very generously supplied with books and supplies during the entire year. Many new books are not needed, but there are still lacking a few which would make class work more efficient. Among these I would mention a good book on hygiene in Spanish for teachers' use. If the work as now mapped out in the Course of Study is to be carried on, I would strongly recommend the making and publishing of a simple book on the teaching of nature work. A similar work is much needed for the drawing. Better work could be done in arithmetic in the lower grades and rural schools if there were a better elementary arithmetic. Such a one is *Primeros Pasos en la Aritmética*, by Pierce (Silver, Burdett & Co.). There is, besides, a great need for better books for the English work, but, while I have examined a number of readers, I have yet to find any set fitted to the needs here.

During the year one teachers' meeting and one institute were held. The first was on November 21, in Caguas, and was very successful. The attendance was good, great interest was shown, and practical school subjects were discussed in a creditable manner by the teachers. The institute was held on March 18 and 19 under the direction of Mr. Enrique C. Hernandez, examining superintendent of the department. All the meetings were made as practical as possible, and much good resulted from the interchange of opinions on the part of the teachers. The meetings were addressed by the commissioner, the assistant commissioner, Mr C. H. Ames, of Boston, and Mr. Fernandez Juncos. Such meetings as these, when well planned and timed, are a great aid in the professional advancement of the teachers.

After considerable study of the matter I have come to the conclusion that the time has come to make important changes in the Course of Study for the graded schools, and to make a new course for the rural schools. The course at present in use has no relation to the texts furnished, and, as few teachers have the ability to adapt the texts to the work outlined, the result is in many cases a more or less complete abandonment of the course. Again, from the beginning teachers are called upon to teach subjects about which they know little, on which they have had to pass no examination, and upon which no treatise is furnished or obtainable. Such subjects are drawing, local geography, plant and animal study, and study of the human body.

The matter of a new course of study for the rural schools I regard as of even greater importance. The entire school experience of the average child in the rural school does not carry him beyond the second grade. I think that in this matter this district is in no way unique, and here there are 1,565 children enrolled in the rural schools and only 81, or a little over 5 per cent, in the third grade. All the rest are in the first or second grades. I see no present prospect of these conditions changing and under these conditions I believe that the first aim of the rural school should be to give the pupils a grounding in the essentials which will reduce the illiteracy and dense ignorance of the country districts. I would recommend a course which would give reading, writing, arithmetic, English, and garden work in that order of importance, and emphasise the elements only of each study and aim much more for thoroughness than the amount of ground covered. In considering such a change as the one proposed it must be remembered that the children of these schools are of greater average age than those of similar grades in graded schools, and should thus be better able to do this type of work. The average of the children of these schools is a little under

10 years, although as before shown they are nearly all in the first and second grades.

During the year the entire district has been regraded, using uniform examinations as a basis, and thus at the present time a grade in one town is as nearly as possible on the same basis as the similar grade in another town. The amount of work and personal examining in the various towns was very great, but the results show that it was time well spent. Now, at the end of the year, examinations for promotion have been prepared in all subjects in the several grades and thus the results of the former work of grading will not be lost.

The one agricultural school in the district was, on my recommendation, changed to a regular rural school, and as such has been a very much more useful and successful school. I would recommend that it be continued on its present status for the present.

Among the many very excellent arrangements made by my predecessor, Mr. Conant, was one by which the contract for all the janitor service of the Caguas schools was let out to the lowest bidder, subject to rules and regulations prepared in this office. The plan has worked perfectly and the very vexatious problem of janitor service has been solved in this town.

This year important changes which have greatly facilitated the work of the district have been made in the equipment of the superintendent's office. An appropriation was secured from each of the three boards of the district and a suitable office secured apart from the storeroom. The remaining money was spent in the purchase of a Smith-Premier typewriter and Edison mimeograph, and a Globe-Wernicke card index unit and some minor supplies. During the year the more important parts of the office work have been reduced to card systems, and such things as records of visits, records of absences and changes of teachers, and schoolroom equipment are now all indexed on cards. This has resulted in an immense improvement in the office methods. With the similar appropriation which I hope to secure for the coming year a really complete and up-to-date equipment can be secured and all office work done in a businesslike manner.

With the aid of the mimeograph a large number of circular letters, programmes, and information blanks have been made for the teachers. During the year 28 circular letters of instructions to teachers have been struck off and distributed. Six information blanks, 2 programmes for rural schools, 2 for teachers' institutes, 2 forms for book receipts, the ballots for Arbor Day, and 5 different outlines and instructions for the teaching of subjects on which there is no text-book have been made out and sent out.

As this last-mentioned matter is a new departure it may merit a word of explanation. During the second term I sent out uniform programmes for rural schools, and thus regulated the number of weekly lessons to be given in the subjects called for in groups 3, 4, and 5 of the course of study. I then made and sent to each rural teacher and to the first and second grade graded teacher a set of lessons in drawing, giving just what was to be taught in each lesson from that time to the end of the year, and with full instructions for teaching and explanatory marginal drawings. This was followed by similar courses in plant study, animal study, study of the human body, and local geography. In each case the object was to give the teacher simple, definite directions as to what to teach and how to teach it in each subject for each lesson. Although the lesson helps sent out were far from perfect, yet I am glad to be able to report that the results have shown the plan to be a decided success and a great advance over the old way of leaving the teacher to drift along as best he may in the teaching of these subjects of which he knows little and about the teaching of which he knows less.

The matter of reports on the occasion of visits to schools is one which has received much attention during the year. The object has been to not only call the attention of the teacher to the shortcomings of his work, but in every case to tell or show him how to remedy the defect. The "criticisms and suggestions" blank has been used freely in giving definite instructions to the teachers, often a number of the blanks being filled in one visit. Notable progress has been made in the matter of schoolroom decoration. By explaining to the teacher the importance of relieving the uniform dullness of their rooms and by noting in every case in the visit blank in the space reserved for "condition of school as to cleanliness" the progress of the work of securing pictures and decorations, such good work has been done in this line that there is now no schoolroom in the district without at least a few pictures, and some have really well-selected ones.

In closing, I would say that while only a small part of what I had hoped and

planned for has been accomplished, yet distinct progress has been made, and I wish to gratefully acknowledge the skilled support and aid on the part of the department which have made that progress possible.

Respectfully submitted.

LEONARD P. AYRES,
Superintendent of Schools.

The COMMISSIONER OF EDUCATION, *San Juan, P. R.*

SCHOOL DISTRICT No. 5.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF DISTRICT SUPERINTENDENT,
Guayama, May 31, 1904.

SIR: In compliance with section 62 of the school law, I have the honor to forward herewith the fifth annual report on public schools of the district of Guayama.

The number of schools granted to the district of Guayama for the year 1903-4 were two principal, 17 graded, 22 rural, and 1 agriculture. Of these, 3 rural schools were not opened on account of the scarcity of teachers.

The town of Guayama has 1 principal and 9 graded schools. The principal and 3 graded occupy a 4-room school building, built by the department of education; 3 are in a large brick building owned by the municipality, but for which the local board pays \$25 a month, each room having a floor space of 20 by 36 feet; and 3 are in a private dwelling house, the partitions having been removed so as to enlarge the rooms, the rooms having the following dimensions: 30 by 17 by 13 feet, 40 by 14 by 11 feet, and 26 by 18 by 13 feet. All are equipped with modern furniture, are well lighted, and have plenty of fresh air. Attached to each school building is a large playground in which the children can enjoy themselves during recess hour.

These 3 school buildings, together with the office of the superintendent, are connected by a private telephone, which enables the principal and the superintendent to be always in touch with the schools.

By this telephone system all the schools in town are opened and closed at the same moment, signals being given from the room of the principal. Through this telephone the principal or superintendent can be notified at once in case either are needed at any one particular school, and it proved to be very handy when one of the teachers was taken suddenly ill by drinking carbolie acid, both principal and superintendent being notified by means of the 'phone and were able to be on the scene a few moments after the accident. Electric bells also connect the rooms in the different buildings.

In Arroyo there is 1 principal and 3 graded schools. A great improvement has been made this year in regards to school buildings for this town. Through the aid of the alcalde of Guayama, and by paying \$25 rent a month, the local board of education was able to obtain a fairly large size building, formerly used as the alcaldia, in which two of the schools of Arroyo have been placed. The rooms have the following dimensions: 48 by 16 by 11 feet and 31 by 28 by 11 feet. The other 2 schools are in the same building used last year, but which has been remodeled and enlarged, the rooms having a floor space of 25 by 20 feet and 31 by 20 feet. In Salinas there are 3 graded schools. Two are in a small brick building, which is inadequate to the demand, and one is in a building which is large and roomy, well lighted and cool.

The surroundings, however, are objectionable. The office of the justice of the peace, together with the alcalde, is on one side, and in rear of the building is the dispensary and operating room for the poor, also the city jail, which is anything but pleasant.

These buildings are an improvement over what was used last year, but still much is lacking. A good 4-room school building is needed, and I am in hopes that the same will be built in time to be used next year.

All the graded schools of the municipality of Guayama and many of the rural have a full equipment of modern school furniture; the rest, with an exception of one or two, have at least one-half of the class seated at modern desks. The one or two that I speak of still have the native bench and long desk, but these next year will be replaced by American furniture. All have filters (native); blackboards, 3 by 12 feet, with chalk tray; teachers' table; two chairs; clock, and bell.

The municipality of Patillas has 2 graded and 7 rural schools. I am sorry to state that owing to lack of funds no improvements were made this year to the schools. The same old buildings have been used and they are all in a miserable condition, especially that of the graded schools in town. I am glad to be able to state that the department of education is about to build a 3-room school building, so that next year the schools will be in much better condition.

The site for this building, which has been donated by the municipality of Patillas, is in front of the plaza, where there is always a nice cool breeze blowing.

The work in the schools of the municipality of Guayama has been all that could be expected. The teachers have been attentive to their duties, have followed the Course of Study as far as practicable, been prompt and regular in their attendance at school and in the English class, and have cooperated with and assisted the principal and superintendent in making the schools attractive to the pupils, so that, in many cases, the child would much rather be in the schoolroom than at home.

The children have made rapid progress in their studies, and especially so in English. This does not only apply to the graded, but also to the rural schools.

Next year the local board will establish a library in connection with the schools, so that the children may have the privilege of taking home a book once a week, if deportment and class work have been good.

In order to make the schools more attractive, and at the same time introduce into the schools physical exercises, the local board has decided to purchase tennis and croquet sets, so that the children may play at the school grounds on Saturdays and holidays, and will also open a small gymnasium in connection with the higher classes. This will not only benefit the school children, but will attract the parent to the school, which is greatly desired.

No great improvement has taken place in the schools of Patillas. The teachers, I do not say all, but the majority, have taken very little interest in their schools this year. The result is that the children are not as well advanced as they should be and that four of these teachers will not be issued certificates to teach during the coming year.

There will be a new local board of education for the municipality of Patillas next year, and I have no doubt but what they will elect good and competent teachers to take charge. Now that Patillas is to have a new school building, and with new teachers whom I feel sure will take more interest in the schools, I can see no reason why the schools of Patillas should not obtain the same standing as those of other towns.

In Guayama, Arroyo, and Salinas the progress has been marked. Through the efforts of the local board, and I can assure you that its members have worked hard this year to improve the schools, a very excellent set of teachers were contracted.

These teachers, especially in Salinas, have labored to eliminate all the faulty work done last year, and they have succeeded far beyond my expectations. It is now really a pleasure to go into the schools and see the pupils at their work.

Two more graded schools are greatly needed in the town of Guayama. Mr. Carlos M. Muñoz, principal of the schools, has been a great assistance this year, as, in fact, have all the teachers. Many of these teachers speak English fairly well, and, although I have not received the report on the result of the English examination held here a few days ago, I am sure that they have done well and will do credit to the district.

The English teachers this year were new in the island and it took them some time before they could make headway in their work. A teacher of English should have at least a speaking knowledge of the Spanish language in order to obtain good results. Too much time is wasted at the beginning of the school year by those who know no Spanish.

The agricultural school of Arroyo and the night school of Guayama have been quite a success this year. Mr. José E. Navarro, teacher of the agricultural school, has, with hard work, produced a first-class truck garden. The attendance at this school has been almost double that of last year.

I desire to speak a word about the local board of education of Guayama. Mr. Andrés Rodríguez, president, and Mr. Andrés Avelino Fuentes, secretary, have labored hard to bring the schools up to a standard second to none in the island, and they have almost succeeded. New desks, teachers' tables, chairs, large blackboards with chalk trays, filters (native), bells, and school decorations have been purchased by them. They have furnished the office of the superintendent with everything that is needed for school supervision—typewriter, file cases,

large office desk, and mimeograph. I have been told that it is one of the best equipped in the island.

At the Washington Graded School there is being constructed a wire-woven fence at a cost of \$650, which, when completed, will be one of the prettiest in the island.

Once every term the local board has visited the schools, both graded and rural, and these visits have always led to some improvement. It has been through their aid, together with the alcalde of Guayama, that the school law in regard to compulsory attendance has been enforced. Their meetings have been irregular, and at the last meeting it was decided that the board would try, with the assistance of the department of education, to erect 3 4-room school buildings, one each in the towns of Salinas, Arroyo, and Guayama, at a cost of \$32,000. I desire to publicly express my thanks to these gentlemen for their valuable aid.

In looking over some old records of the district of Guayama I came across an account of the first schools opened here. The first two schools in Guayama were established in the year 1820. One was for boys and the other for girls.

From 1820 to 1899 there was an increase of 8 schools, 6 being in the town and 4 in the country, all supported by the municipality. These schools were furnished with little or no furniture, and the teacher was promised 15 pesos a month. (I do not say he received this amount, because, from all reports, such was not the case.) Very little instruction was given to the girls, needlework and embroidery being about all.

Some of the teachers were receiving extra pay from a part of their pupils. These pupils received most attention, and much partiality was shown them in every way. Pupils were from 9 to 14 years of age. They could, as a rule, read well from simple readers, but could neither read nor write script, and knew hardly anything of arithmetic. This condition appears to have been due to the fact that catechism and Christian doctrines received most attention in the schools and that recitations and examinations were conducted orally.

All this has been changed. No religion is allowed to be taught in the schools, and the teacher who would accept extra pay for teaching any special pupil during school hours would be dismissed at once.

All the children receive the same attention, and to-day I am glad to say that there is hardly a child above the first grade who can not read and write script.

The increase in the schools under the Spanish rule, from 1820 to 1899 (sixty-nine years) was 8. The increase in schools from April 1, 1899, to May 31, 1904 (five years), has been 31. Thus it can be seen that in one-fourteenth of the time schools have increased practically 400 per cent. Of these 31 schools over four-fifths are equipped with modern furniture, and all the teachers receive their salary promptly at the end of the school month.

Respectfully submitted.

JNO. W. ZIMMERMAN,
Superintendent of Schools.

The COMMISSIONER OF EDUCATION,
San Juan, P. R.

SCHOOL DISTRICT No. 6.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF DISTRICT SUPERINTENDENT,
Aibonito, P. R., May 31, 1904.

SIR: I have the honor to submit my annual report for the school year 1903-4.

At the beginning of September, 1903, the present superintendent took up his work in this district, which comprises three towns, namely, Aibonito, Barros, and Comerio. As these towns lie in the very heart of the island, the means of communication are somewhat difficult, as the only roads are mere mountain trails. Thus the superintendent can not be in as close a touch with his teachers as he might were the natural conditions different. However, the fresh mountain air and good water of these mountain springs give more life and activity to general life than is found in some of the coast towns. These natural conditions help much in the spirit and interest shown by the children in our schools.

The school year opened with a comparatively good enrollment in all the schools except in Barranquitas, a small town of Barros. Here in Barranquitas a difficult problem presented itself. It appears that the people of this section

of the town are bitterly opposed to the annexation and have not become reconciled to it. In the selection of teachers by the school board the previous June, the desires of this section were not considered favorably, and the teachers appointed for Barranquitas were naturally confronted by local antipathy. Then came the difficult question to the people of Barranquitas, Shall a section of a town submit to the dictates of the majority that have failed to grant their petitions? The question by the people was answered in the negative, and the children were withdrawn from the public schools. Thus all graded schools, 3 in number, were closed. The people would not listen to reason, and the children of Barranquitas have been deprived of the benefits of our public schools because their fathers would not lay aside their political antipathies and submit to the powers now in force. This problem clearly shows how strongly political feelings enter into affairs that should be above all political consideration.

True it is that the school board often selects its teachers from a political basis, but gradually it is learning that the teacher is not a political factor.

The people of Barranquitas are now seeing their mistake and are waiting for the reopening of graded schools the coming year.

In the other parts of the district no such opposition was manifested, and all schools were opened promptly, having a good general average of attendance throughout the year.

The native teachers are mostly young men who have been trained to some extent under our American system. These teachers generally are earnest and conscientious in their work, ready and willing to take suggestions for the improvement of methods or the general movement of their schools. It appears, however, that these teachers have previously entertained a certain feeling of fear of their superintendents. It is evident that a teacher who is afraid before his superintendent can not be his true self in the performance of his duty at the time of inspection. The superintendent has tried to disperse such fear and, winning the confidence of his teachers, has been able to assist them as otherwise he could not have done. This has been one of the greatest advances during the year—the free voluntary consultation of the teacher with the superintendent upon school problems and general methods.

With the idea of more uniformity in methods and the nourishment of the spirit of comradeship, a teachers' conference was held, attended by nearly all the teachers of the district. Later a teachers' institute was held, under the direction of Mr. L. R. Sawyer, chief of the division of supervision and statistics, a report of which has been submitted. These conferences are productive of much practical good, as the teachers meet, discuss methods compare notes, and feel that inspiration so essential to all human progress—the feeling of companionship. Thus the teacher can sing "America" with more spirit and true happiness with his children from his little rural hut when he feels that yonder mountains are reverberating with the same spirit of freedom as his brother teacher begins his daily work.

This district suffers much from the lack of English teachers. Undoubtedly this is due to the fact that travel over the mountains on horseback does not appeal very strongly to the American teachers upon their arrival. Nevertheless, if they only knew the advantages of climate and could feel the kind welcome of the people, they would prefer a town like Barros to many of our coast towns. In Aibonito there has been good practical teaching of English the whole year. In Comerio there has been three different teachers, which of course breaks up the progress more or less. This change of teachers has not resulted from the unattractiveness of local conditions, but from the voluntary resignation of the teachers. We need teachers of strong, persistent purpose in our English work, and not mere adventurers. But in Barros, the very center of American spirit, there has been none. It is truly unfortunate that Barros has been deprived of English teaching for so long a time, for the children and the town itself are eager to learn the American tongue.

English to some extent has been taught in the rural schools, but limited to practical, objective teaching. To be sure the pronunciation often is rather questionable, but to be greeted with a pleasant "good morning" away out on some desolate trail is surely encouraging.

There are two agricultural schools in Barros, one being in Barranquitas. These schools have a comparatively small enrollment, and the results obtained in the line of agriculture do not warrant the ratio of expense per child. If each rural school could be provided with an elementary course in practical gardening, more real benefit would result in the line of agriculture. Many of the rural schools now have a flower garden, and this love of beauty inspired by

the teacher is often transplanted to the grass huts in the vicinity, where a rose blooms, showing the child's attempt to make home more attractive.

The lines of work carried on have been as stated—graded, rural, English, and agriculture.

The school furniture of the 6 graded schools in Aibonito is in excellent condition. Four of these schools are in a building constructed by the department, the other 2 are in a dwelling house which has been transformed into a schoolhouse.

The rural schools are well located but lack much in their amount of furniture.

The 4 graded schools of Barros are located in a large building, formerly a tenement house. The furniture is inadequate for the number of children. The rural schools are generally well located but poorly furnished.

In Comerio the 4 graded schools are also in a former tenement house. These are fairly well equipped. The rural schools are not well located because the schoolhouse oftentimes in a barrio is not central, making the distance for some children very long.

Generally the children are very bright and active, having the power of memory well developed, but in the science of numbers they find a hard road. The ability to reason is almost wholly limited to the boys. The grades in these inland towns are mostly the lower ones, nevertheless a small number have reached the fifth and sixth grades. The rural schools are practically limited to the first two grades. The school programmes of the first of the year were almost as varied as the number of schools. A model programme was sent to all rural teachers which caused a greater uniformity throughout the district. However, these were modified to meet the local conditions. In some instances where the teacher was manifestly incompetent to teach English, this subject was eliminated. The subject of drawing appeared on all the programmes, which practically meant that the teacher gave the child a piece of paper and told him it was time to draw, leaving the child to his own inspiration. This resulted in a heterogeneous collection of questionable representations of plants, animals, and buildings. This line of work without method or principle was stricken from the programme and the child directed to spend such period in penmanship. The child in the country needs a good foundation in the elements of expression and numbers; for finer arts let him seek the higher grades.

With the limited variety of books that we have in our schools the teacher is compelled to use his natural ingenuity to make the lessons interesting. The teachers are realizing that the book is only a guide to give suggestions and they have made much progress in both presenting to the children original matter and leading them into the habit of forming problems for their classmates or relating original experiences. However, if the series now used could be changed a great good would be accomplished. We need especially more books adapted to a tropical region. For the teachers practical, graded outlines for teaching arithmetic, reading, geography, and language would be of great assistance in their work.

The great need among our teachers is the means of presenting and teaching in an interesting, instructive manner.

The loaning of books by the teachers to the pupils has its advantages but, on the whole it seems questionable, as the cleanliness of the home life of the average pupil is not the best to be desired. Oftentimes the books returned to the school are defaced and otherwise damaged. However, the burning of condemned books seems a great loss of material which might be of some use if distributed among the poor class. Of course, these books would have to be effectually marked to prevent their return into school property. This might be accomplished by staining the edges of the leaves with a characteristic, indelible liquid.

Throughout the district the legal holidays have been observed, especially Arbor Day, Washington's Birthday, and Memorial Day. Public exercises were held, and suitable programmes rendered by the children. These special exercises are productive of much good as means of arousing public interest in the schools, but an elaborate programme takes too much valuable time of the school-room work. The department has been very generous in its assistance for the appropriate observance of our legal holidays.

The outlook for the coming year presents many encouraging features. Many of the teachers are going to spend their vacation in the States, thus broadening their horizons and fitting them for better work on their return.

The school board of Barros is contemplating the construction of a school-house, thus saving the amount now paid for rent to be devoted to the improve-

ment of rural schools. In fact all the boards are willing to render all the assistance possible with their limited funds.

It often happens that these boards can not meet their obligations on time because there is no money at their disposal. This is a great disadvantage to the boards, as it often lessens confidence in its contracts and keeps the board continually in debt.

There is good reason to expect a progressive, successful coming year in District No. 6.

In conclusion I thank the department for its ever-ready assistance.

Respectfully submitted.

GEO. L. SPAULDING,
Superintendent of Schools.

The COMMISSIONER OF EDUCATION, *San Juan, P. R.*

SCHOOL DISTRICT No. 7.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF DISTRICT SUPERINTENDENT,
Coamo, May 25, 1904.

SIR: I have the honor to submit my annual report on the schools of the seventh district. As last year's report was quite complete, many matters treated therein fully will only be touched upon briefly in this report.

Some slight improvement has been made in the personnel of the teaching force, although there were but few changes at the beginning of the year. In this district there are very few excellent teachers, but the number doing satisfactory work is quite large. Almost all of the teachers show a disposition to improve and follow the instructions of the superintendent and, in general, their work is improving each year. Additional requirements are made yearly and better results are expected from teachers as their experience under the present system and knowledge of methods become greater. In the work with the teachers during the year, special attention has been given writing, form in written work, careful correction of same by teacher outside of school hours, and repetition of work by pupils as corrected, preparation by teacher for the daily recitation, thoroughness in the teaching of reading and arithmetic, and the proper grading of the town schools, as well as the care of books and supplies and the securing of high enrollments and good attendance in the schools. The teachers say that the work this year has been harder than ever before.

During the year five of the most studious and ambitious young rural teachers have been sent to the Insular Normal School for three months each, and their time at that institution has been well spent. The substitutes have not given as good satisfaction as the regular teachers, but the benefit obtained by the teacher who attends the normal will more than recompense the loss to the school in the charge of teachers for three months. It is hoped that at least as many more teachers will be sent next year.

The English classes for the native teachers have been in successful operation in Coamo and Juana Diaz all year, but not in Santa Isabel, because of there being no English teacher there. The graded teachers have attended regularly, as have many of the rurals, but a number of the latter have been able to attend but few classes owing to the distance they live from town. The English instruction in those rural schools whose teachers are progressing in the language is quite satisfactory. Only a few of these teachers, however, can carry on a conversation in English, and the instruction given by teachers who have not a conversational knowledge of English is necessarily limited to reading, translation, and in the higher grades composition or original phrase making. The teachers are urged to carry on conversations with the pupils as much as possible. In schools whose teachers have not sufficiently mastered the English to be able to teach it satisfactorily I recommend that the subject be dropped, as the time employed could be spent more profitably in teaching the other subjects.

During the year there have been no changes of teachers in Juana Diaz. In Coamo 1 graded teacher and 1 rural resigned, and both accepted positions in Santa Isabel later; and in the latter town the work has been seriously interfered with by the many changes that have occurred in the teaching force.

In Chomo it was necessary to close 1 rural school in the second term on

account of lack of a teacher, and in Santa Isabel 2 rural schools are now closed for the same reason. Two graded teachers resigned in the latter town. A substitute was secured at once in the first case, but one of the town schools remained closed for the last two months of the year through inability to secure a teacher to fill the second vacancy. The English teacher at Santa Isabel resigned at the end of the first term and a new one has not been sent there during the rest of the year. With but one exception the teachers who have left the district during the year were not doing satisfactory work.

Night schools have been in successful operation in Coamo and Juana Diaz during the year. The pupils range from 8 to 25 years of age and generally belong to the poorest classes. The work has been seriously interfered with because of the many changes constantly occurring in the enrollment.

The English teachers at Coamo have now been here for two years, while the 2 in Juana Diaz are new to this district, though both had taught on the island before. The one sent to Santa Isabel at the beginning of the school year gave very little satisfaction and resigned at the end of the first term. The work in English in the Coamo and Juana Diaz schools has been satisfactory. Next year I hope that the highest grades in Coamo and Juana Diaz can be under English teachers who will teach all the subjects in that language except Spanish grammar. I also favor the withdrawal of the English work from the first grades in towns where the special teachers of English can devote all of their time to the higher grades advantageously. This year the work in arithmetic and history, as well as the regular English reading, composition, and grammar work, has been done in English in the higher grades in Coamo and Juana Diaz, and the pupils of these grades are now competent to take up all of the work in this language.

One general teachers' institute was held in March, following instructions received from the department. Mr. Felipe Janer, the able assistant principal of the Insular Normal School, was the conference director and deserves much credit for the highly interesting and instructive manner in which the conference was conducted. Five sessions, lasting two days, were all too short to permit a full discussion of the papers which were read by teachers to whom subjects had been assigned. One night session, to which the general public had been invited, was crowded and proved a decided success.

As usual, semiannual examinations were held in February for the pupils of the graded schools. In order to secure the proper carrying out of the instructions governing the examination the questions, which had been prepared in this office, were sent to the English teachers, who took charge of the work. The papers were sent in to this office and examined after being marked and shown to the pupils. Where they were improperly marked or showed that the instruction had been deficient, the teacher's attention was called to the matter in a letter. It has been found that there is a marked tendency to assist the pupils, with the idea that the teacher makes a better showing thereby. The questions for the coming June examination are now being prepared in this office. They will be given to both graded and rural teachers.

The grading of the town schools is now about as perfect as it can become without the employment of competent principals. Both the Coamo and Juana Diaz school boards should endeavor to secure the services of a good principal teacher. The acting principals attend to the distribution of books and supplies, report absences of teachers, transmit instructions to them from this office, and, in general, assist the superintendent by taking charge of certain details which would otherwise occupy a great amount of the latter's time. As they all have regular grades it is, of course, impossible for them to visit the other rooms, and they are expected to do no inspection work which would require such visits. The graded schools therefore receive only such supervision as the superintendent is able to give them in his monthly visits and frequent talks to the teachers outside of school hours.

The instructions contained on Form V, reports on teachers' work, have been strictly followed and only the words "satisfactory" and "unsatisfactory" have been employed, though it is thought that this marking is too restricted. A system reducing the marking of the teacher's work to a percentage basis, or at least allowing greater latitude in the matter, would give better results, in my opinion, although no serious difficulty has been found with the present system. The tissue paper reports have been used extensively; at almost every visit one or more sheets have been filled out with criticisms and suggestions. The reasons why an "unsatisfactory" mark has been given are always set forth on

these sheets. The books containing the carbon copies of these notes are always carried around on the visits, and reference is made to them in forming an opinion of the teacher's work.

No difficulty has been experienced with any of the other reports or the roll book, though the teachers spoiled many of the latter and the Form A blanks.

The usual holidays have been celebrated in the schools, and the Arbor Day and Washington's Birthday exercises were particularly elaborate in all the schools, and notably so in the towns. Memorial Day will also be celebrated appropriately, and on the 17th of June, the last day of school, a closing fiesta will be held in the three town groups. It is intended as a Flag Day celebration, though the date is three days later than Flag Day. Several gross of small flags have been purchased and will be used by the children in their songs and parade around the towns. On the morning of the same day there will be an exhibit of the pupils' work in all of the town schools, and special efforts will be made to secure the attendance of large numbers of the townspeople at the morning exhibit and the afternoon exercises.

During the entire year literary exercises have been held every afternoon in all of the schools of the district. For this purpose each teacher divided his school into four groups, and the pupils chose a name for the section and also a leader who, with the assistance of the teacher, prepared a programme for the exercises one afternoon each month. The last hour has been used for this purpose in the rural schools, and the time after recess in the graded schools, and the pupils have taken great interest in the exercises.

The matter of securing suitable quarters for the schools is usually left largely with the superintendent. Some few boards occasionally take the initiative in this matter, others will sometimes act upon the recommendations of the superintendent, but often the latter must do most of the work incident to securing and fitting out suitable quarters.

The relations between the school boards of Juana Diaz and Santa Isabel and the superintendent have been most pleasant, and all three of the boards have acted on the recommendations made by this office, with the exception of some difficulties with the Coama board during the past summer with respect to the selection of some outside teachers and two school buildings. They deserve much credit for the able manner in which their funds have been managed. Each board will close the year with all debts paid, and those of Juana Diaz and Santa Isabel will each have a surplus of over \$1,000, which they intend to devote to the construction of rural schoolhouses.

In general the buildings used this year for school purposes are the same occupied by the schools last year. In Coamo two schools that were formerly in separate frame houses have been placed in an excellent brick building. Two of the rural houses are quite poor, and efforts will be made this year to secure better buildings, though former attempts in the same direction have failed for lack of suitable houses in the neighborhoods of the poor ones. In Juana Diaz the building used for four of the graded schools is not satisfactory because of its very small yard. The board has secured a reduction in all of the rents of schoolhouses for next year, and will in addition require proper repairing of the buildings. The Santa Isabel town schools are in fair buildings, but all the rural schools in that jurisdiction are very poorly housed. It is impossible to secure proper buildings in the rural districts of Santa Isabel, although the rent paid is higher than in the other towns.

A detailed report on the condition of the schools as to the building, furniture, and equipment will shortly be submitted to each school board, together with recommendations on the needs of the schools for the coming year.

It has been a matter of regret that no construction work has been done during the year. The 6-room graded school at Juana Diaz is sorely needed and, I understand, will be built soon. Coamo has proposed to pay for one-half the cost of a 6-room addition to the present 4-room graded school, and it is hoped that work can be begun soon on the building. A rural schoolhouse is also to be built by the department in one of the country districts of Coamo. The land on which to construct all of the schools mentioned has been deeded over to the people of Porto Rico.

The boards of Santa Isabel and Juana Diaz are ready to build one rural school each at the end of the present school year, and steps have been taken to do the work. It is thought that if the department can duplicate the work of the boards in the construction of schoolhouses for the rural districts, within a few years each barrio will have its modern school building. Perhaps the matter could be even further advanced by securing a loan from the insular

treasury and doing the work at once. The plan would be feasible if the department could meet one-half of the total expense and the school boards return to the treasury the other half of the money in five yearly payments. If it is necessary to employ only the savings of the boards, a number of rural schools can be built each year, and with an equal number put up at the expense of the department, in a short time we would have an excellent school plant and be able to require additional results of the teachers in these schools. The matter has been presented to the department and favorable action is expected.

Last year the commissioner requested the school boards to include a sufficient sum in their budgets to properly fit out the superintendents' offices, and each board in this district appropriated \$70 for that purpose. A 7-unit cabinet file case, mimeograph, typewriter, revolving desk chair, tables, postal scale, and other necessary articles were purchased with the \$210 thus provided. The office is now satisfactorily furnished, and it has been possible to make the office work much more attractive than ever before. In addition to the prompt despatch of the current office work and the filing of all reports and communications received in the office since its establishment in 1899, a series of circular letters has been issued, and the distribution of them among the teachers has greatly increased the efficiency of the supervision. Twenty of these letters have been sent out, some quite long and others brief, treating the following subjects: Opening work of the schools; instructions to teachers as to programmes and preparation of daily work; distribution and care of books and supplies; English classes for teachers; school furniture; planting of trees and flowers on school grounds; school registers; observance of anniversary of the discovery of Porto Rico; Friday afternoon exercises; written work; teaching of writing; discipline; instruction regarding filling out of reports; Christmas holiday exercises and work for close of first term; attendance at the English classes; written work for the St. Louis Exposition; pupils' monthly reports, manner of filling out and object of them; attendance at schools; Washington's Birthday exercises; teachers' institute; vaccination; work of the last term; closing work of the year; examinations.

These circulars keep before the teachers' minds many points that it would be impossible to refer to during the regular visits to the schools. They are expected to comply with the instructions given in these letters, and most of them do so. Practical results in improved methods of teaching, care of books and supplies, celebration of holidays, and particularly in systematizing the work in all of the schools of the district, have followed the distribution of these circulars. The department requested all the superintendents to send in copies of their circulars to teachers for distribution among each other. Many of the letters gotten up here have been sent in for that purpose, and a number of interesting circulars from other districts have been received and read with pleasure and profit.

The mimeograph has been used in running off examination questions, programmes of celebrations, outlines for teachers' conference, blank receipts for books loaned, and reports of teachers to boards on condition of furniture and school buildings, etc.

The improvement in school equipment over last year has been great. With very few exceptions the rural schools have eight long desks, an equal number of benches, a teacher's table, bookcase, and chair, and the schools of Santa Isabel all have sanitary filters. The graded schools of Juana Diaz and Coamo also have filters, as have many of the rural schools of the latter town. All the desks now made in the district have what might be called a "double top," which consists of a board running the entire length and width of the desk 6 inches below the top, with an opening toward the seat, in which books and supplies of the pupils are kept. A well-made desk of this kind is about the best locally built imitation of the patent desks that can be had, and as it will necessarily take a long time to equip all of the rural schools with modern furniture, an attempt should be made to also improve the old-style backless benches now in general use throughout the island. The attention of the boards has been called to the advisability of having the benches made with backs, and next year they will all be so constructed.

The distribution of books and supplies has been so systematized that this work required but little of the superintendent's time, except at the beginning and end of the school year. As soon as the supplies are received they are placed in the hands of the teachers through the acting principals, if they are needed in the schools. Thus it is only necessary to keep three accounts of books and

supplies given out from this office, and the annoyance caused by the distribution of a dozen pencils to one teacher and a box of pens to another is obviated, and the teachers' wants are supplied much better than they possibly could be if the superintendent looked after all the details of the distribution in each town. It has been a matter of regret that the requisitions have not always been filled from San Juan. Most of the books asked for were received on time, but there has been some shortage of composition books, ink, etc.

In closing I will say that more than one-half of the teachers of this district will go to the United States on the Porto Rican teachers' summer study trip which leaves the island next month, and great results are expected from this excursion. The teachers are very enthusiastic over the trip, and it is hoped that their enthusiasm will continue during the next school year, and that the good effects of the trip will be felt in their schools.

Respectfully submitted.

S. W. ECKMAN,
School Superintendent.

The COMMISSIONER OF EDUCATION,
San Juan, P. R.

SCHOOL DISTRICT No. 8.

DEPARTMENT OF EDUCATION,
OFFICE OF DISTRICT SUPERINTENDENT,
Ponce, June 1, 1904.

SIR. I have the honor to submit herewith my fifth annual report as district superintendent of schools:

I began the present school year as superintendent of the district of San German, being transferred to the district of Ponce on October 20, 1903. My predecessor left shortly after the opening of the schools, and as the district had been without a superintendent for several weeks at the beginning of the first term, I found everything in a rather disorganized condition. Due in part to this state of affairs at the time of my taking charge of the district, and to the large number of schools, I have not been able to give that close attention to individual schools necessary to successful supervision. Last year the superintendent of this district was supplied with an assistant, and until some means are provided for taking much of the routine work off my hands I shall not be able to do satisfactory work.

Within a few days after my arrival in the district I became convinced that a thorough reorganization of the schools was necessary. This was especially true in the upper grades. For instance, one teacher devoted half of his time to an eighth grade of 5 pupils, and another spent all his time teaching a combined seventh and eighth grade of 15 pupils, while the principal of the same school had nothing to do except to direct the work of the seven grades under his charge. The English work was utterly unsatisfactory and barren of any practical results.

This problem of reorganization was greatly simplified through the opening of the Roosevelt Industrial School at the beginning of the second term, as I was enabled to transfer to this school all pupils of the graded schools above the fifth grade without difficulty or opposition. In this way I succeeded in doing away with the small and expensive upper grade classes and in preparing the way for more uniform and substantial upper grade work.

As before stated, one of the first matters that drew my attention in this district was the exceedingly unsatisfactory work in English. Pupils who had been attending the public schools for five years were not able to carry on a conversation of the simplest kind in English, and, due in large part to the method followed by their teachers, they took no interest whatever in the subject. I feel sure that we may expect no satisfactory results from English teaching until the pupil does the greater part of his school work in this language. It is equally certain that these results can not be obtained, nor can we use this method, where the teachers of English have but an hour a day or less for their work in each grade. I hold that the solution of the problem of the teaching of English in Porto Rico lies with the Porto Rican teacher, and in accordance with this idea next year I shall have all work above the third grade done in English, the classes being taught by Porto Rican teachers sufficiently advanced in the language to do this work satisfactorily. These teach-

ers are rather hard to find, but I have not the slightest doubt of being able to get enough of them for the city of Ponce for the coming year, and now that the department is paying higher salaries to this class of teachers, I believe that the supply will be in excess of the demand. Of these schools there will be 8 in this municipality next year, and the following year 12 more will go on the same basis.

Some very good English work has been done in some of the rural schools by teachers graduated from the High and Graded School of this city. All of these speak English fluently. However, the results of the teaching of English in rural schools are, taken altogether, of doubtful value, and it is a question whether it would not be better to devote the time to some other subject.

In the matter of schoolhouses and of school furniture, I doubt if there is another district on the island in worse condition than this. There is not one single school building in the city fit for use as such. The rooms are small and uncomfortable, and with an average seating capacity of about 30 to 35 pupils, at least 30 per cent less than the number each school is supposed to accommodate. A number of the schools still have the old log benches and desks. The blackboards are merely strips of blackboard cloth nailed on the bare walls, with no backing and no frames. The conditions in the rural schools are still worse, and only a short time ago, upon making a visit to a school in the country, I found a class of pupils seated on the floor, there not being enough benches to seat all the pupils. It may be that these conditions exist in other parts of the island, but I do not think so.

With the aid of one of the members of the school board, I have been able to do a little toward securing better schoolhouses and supplying new furniture to those schools most in need of it. If our plans for next year can be carried out we shall be able to properly house every school in the district and equip them all with suitable furniture.

Last year the average attendance in the district of Ponce was highest of all the districts of the island. While the statistics of this year have not yet been published, I think we may expect the district to hold its place as the first on the island in enrollment and attendance. In the city the attendance has been particularly good, and many schools have averaged as high as 90 and 95 per cent attendance during the year. The general interest taken by all the public in school work is most gratifying, and if participated in by the municipal authorities would undoubtedly go far toward remedying within a short time the defects which exist to-day.

A report on the schools of Ponce would be incomplete did it not include some mention of the work of the High and Graded School, although this school during the present year has not been under the supervision of the district superintendent. Mr. H. O. Wells, the principal, and his efficient corps of teachers, have won for this school in two years' time a most enviable reputation. It is to be regretted that Mr. Wells will not return to Porto Rico after finishing this year's work, and his departure leaves a vacancy which will be hard to fill. The Industrial School, under the charge of Mr. George W. Hamilton, although not opened until the second term, is now well established, and its work is favorably commented on on all sides. The return of Mr. Hamilton next year renders secure the continuance of the successful work of this school.

We have one agricultural school in this district, under the charge of a Porto Rican teacher. In spite of the lack of cooperation on the part of the parents of the children, and the not altogether sufficient equipment, this school has done very good work.

We have had 5 night schools in session throughout the entire year. The attendance in these schools has been very good, and there is usually a long list of those waiting to be admitted. It is unfortunate that we are unable to increase the number of night schools, as there is a large number of young people whose occupations prevent their attending the day school, who could in this way receive the rudiments of an education.

In March, just before the spring vacation, teachers' institutes were held here under the direction of the department. The attendance was very good, only those teachers who were ill not being present. The interest displayed during both days of the institute was very satisfactory, and a number of the papers read by the teachers showed careful preparation and a thorough knowledge of the subject. All the teachers expressed themselves as highly satisfied with the institute, and in my opinion it was a decided success.

On Arbor Day the schools carried out a very interesting programme. Each child was given a small flowerpot made of the half of a section of bamboo.

These were decorated by the children with ribbons, colored papers, etc., some of them making a very neat appearance. At 9 o'clock in the morning all the schools, each group carrying its banner and each child with its "canuto," or flowerpot, marched to the plaza, where several short addresses were made, among the speakers being Mr. Ulpiano Colón, the president of the school board, and Mr. E. W. Lord, assistant commissioner of education. After the addresses and the singing of a number of patriotic songs, each group marched to a spot previously designated on the outskirts of the town. Here the children filled the "canuto" with moist earth and planted in them seeds which had been distributed the day before, after which they marched back to the school buildings, where refreshments were served. The programme as carried out was a great success, and as the children carried the plants to their homes the general results were much greater than those obtained through the celebration of this holiday in previous years.

At the present time the teachers are preparing for a great celebration on Flag Day, to be held in the theater. An elaborate programme has been arranged and the affair promises to attract a great deal of attention.

The proposed trip to the United States for the Porto Rican teachers during the months of July and August, now being arranged by Doctor Lindsay, has been taken up with considerable enthusiasm by the teachers of Ponce. At present writing some 50 of 85 teachers have signified their intention of making the trip, the largest number going from any one district on the island. The majority of those not going are really unable to do so, as many of them have large families to support and all of their savings will be needed to tide them over the summer vacation. The sacrifices that some of them are making in order to take this trip, with no other object than that of fitting themselves for better work in their profession, entitles them to every consideration at our hands. That the benefit they will obtain from the trip will more than repay the efforts they are making there can be no doubt.

Respectfully submitted.

R. R. LUTZ,
Superintendent of Schools.

THE COMMISSIONER OF EDUCATION FOR PORTO RICO.

SCHOOL DISTRICT No. 9.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF DISTRICT SUPERINTENDENT,
Yauco, June 1, 1904.

SIR: I have the honor to submit my report for the school year 1903-4. I was transferred to this district at the beginning of the year, and found, thanks to the work of my predecessors, the schools well organized.

The district includes the three municipalities of Yauco, Sabana Grande, and Lajas.

We have 21 graded schools, all well housed and supplied with modern furniture and equipment.

In Yauco we have a 4-room building erected by the department. In January we were able to occupy two beautiful new 4-room buildings—one in Guanica, a barrio of Yauco, and the other in Sabana Grande. These two buildings seem to meet admirably every requirement of a Porto Rican school.

In Lajas we have secured a fine lot facing the principal plaza for the 3-room schoolhouse which the department and the municipality purpose erecting. It is hoped that this new schoolhouse would be ready for occupancy in the fall.

In contrast, our rural schools, with the exception of the agricultural schools of Sabana Grande and Lajas, are badly housed and poorly equipped. In order to open a school in the country we must accept the house that is offered, always ill adapted and generally far from being conveniently located.

The school board of Yauco is taking a step toward remedying this difficulty—only one step, it is true, but in the right direction. They propose building in one of the barrios that needs it most a schoolhouse and fitting it with modern equipment.

So much for our material equipment, and now a word about our work. I have tried to make this a year of quiet, earnest work on the part of both teacher and pupil. The teachers generally have seconded my efforts in this direction,

and the pupils have been made to realize to some extent that their progress must depend upon the work that they themselves do.

The most notable progress has been made in the work in the English language. This I regard as due in large part to the new method of teaching English prescribed by the department's manual. The American teachers in this district have followed the method with gratifying results. Pupils have begun to understand that the study of English is something more than the mere translating of a few pages each term.

In the grades taught by Principal Nin in Yauco and by Principal Cordero in Sabana Grande some of the grade work has been done in English, and both of these teachers desire to do the entire work of their respective grades in English next year. I believe them both competent to do the work, and I think the pupils will be ready to do their part.

In the rural schools English has not been neglected, and the progress made has been satisfactory. In several of these schools I have heard lessons in arithmetic given in English.

In January I received from the department the large American flag sent by the Alexander Hamilton Post of the Grand Army of the Republic of New York as a prize for the school in Porto Rico making the greatest progress in English, and which was awarded to the graded schools of Sabana Grande. I had the pleasure of delivering this beautiful flag to the principal and pupils of Sabana Grande and of seeing it raised for the first time over their new schoolhouse.

The work of the teachers' classes in English has on the whole been satisfactory. With a course of study prescribed by the department and regular instruction by the American teachers, the progress has varied only with the ability or the application of the teacher. In this connection it may be fair to say that the teachers of Lajas, since the beginning of the second term, have had no instruction in English, but nevertheless all but two of them presented themselves for the examination.

While proper emphasis has been placed upon the work in English, the other subjects of the curriculum have not been neglected. Particular attention has been given to the teaching of the Spanish language. I am glad to note that most of the teachers of the district have learned that the teaching of a language and the teaching of technical grammar are distinct, and that the former should precede the latter. In other subjects, particularly in arithmetic, I have been glad to observe improvement in methods of teaching, partially due to suggestions that I have been able to make from time to time and in part to the influence of the conferences.

I have noted an improvement in discipline in the graded schools, particularly in the matter of punctuality.

On January 16 a conference of the teachers of the district was held in the Columbus School, Yauco. It was well attended, and instructive papers were read on various topics of school work.

On March 22 and 23 the teachers' institute for this district was held in the Columbus School, Yauco, under the direction of Mr. E. C. Hernandez, examining superintendent of the department. The attendance was splendid. Of the 58 teachers of the district, 54 were present. Only 1 of the absentees failed to give a reasonable excuse.

Mr. Hernandez gave us a carefully prepared programme, with the innovation of discussions in place of prepared papers. The teachers responded to this new plan, and the results were most satisfactory.

On the morning of the second day we had the pleasure of having with us Mr. Manuel Fernandez Juncos, who read a paper on the teaching of music. The Masonic lodge kindly tendered us the use of their beautiful hall for our evening meeting. There was a large and representative audience. Mr. Fernandez Juncos, the principal speaker, was enthusiastically received. Addresses were also made by Mr. Hernandez; Mr. José Torres, of Yauco; and Principals Nin and Cordero.

Arbor Day was celebrated in all the schools of the district. In Yauco the school board had made a careful selection of young trees ready for planting. All the graded schools united and marched to the plaza, where some of the trees were planted, and thence to the grounds of the Columbus School, where others were planted.

Simple but interesting and instructive exercises were held in the schools in celebration of Washington's Birthday.

So soon as the pamphlet issued by the department was distributed the teachers showed the greatest interest in preparing for the Memorial Day celebration.

A notable feature of these exercises in all the schools was that many of the songs and recitations were in English.

Preparations are now being made for the proper celebration of Flag Day on June 14.

I have tried to have my teachers show their pupils that each of these days has its lesson, and in the graded schools at least I think my efforts have had some result.

I have made a careful canvass and I am satisfied that all the teachers of the district who can possibly do so are going to avail themselves of the splendid advantages offered by the expedition to the States this summer. I talked with some who at first thought they could not go, but now in one way or another find it possible.

The agricultural work of the agricultural schools of Sabana Grande and Lajas has been in charge of Mr. Eduvigis Ramirez since the beginning of the second term. In both schools the results have been most satisfactory.

I have been greatly aided during the year by the two very competent principals of Yauco and Sabana Grande.

All three of the school boards have given me every assistance asked for, and I am particularly indebted to the very efficient and active secretary of the Yauco board, Mr. Santiago Villeneuve.

Respectfully submitted.

FRANK S. ROBERTS,
Superintendent of Schools.

The COMMISSIONER OF EDUCATION.

SCHOOL DISTRICT No. 10.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF DISTRICT SUPERINTENDENT,
San German, June 1, 1904.

SIR: I have the honor to forward my first report on public schools of the district of San German.

The present superintendent was appointed to take charge of the San German district November 14, 1903, to succeed Mr. R. R. Lutz, who had just been transferred to the district of Ponce.

The San German district was found in a flourishing condition. Mr. Paul G. Miller, a gentleman well known and thoroughly appreciated all over the island, was its first organizer. He began the work immediately after the American occupation. This was no easy undertaking, in the somewhat unsettled state of affairs at that time, but he was an indefatigable worker, and after remaining here three years succeeded in making this district one of the best organized in Porto Rico.

The second superintendent, Mr. R. R. Lutz, a no less appreciated gentleman, continued the work with the same ability and marvelous tact displayed before in his excellent management of the Arecibo and Utuado schools, and left a host of warm friends well satisfied with his work.

It would be difficult to find men better qualified for the position than the members of our local board of San German. They have proved broad minded and liberal in their views of education and always cheerfully willing to help when consulted in regard to instruction, expenditures, or other school interests. They have paid special attention to the improvement of rural schools during the year, and have shown no reluctance in furnishing benches, desks, clocks, and other articles necessary for the general welfare of the schools. The one great deficiency just now is suitable rural schoolhouses. This matter is already under serious consideration and great improvements in this respect are hopefully expected in the very near future.

We can also pay a high tribute to the local school boards of Cabo Rojo and Maricao. They have promptly seconded all the efforts of the superintendent, and have materially improved the condition of their schools, notwithstanding the small amount of funds at their disposal. The people of Maricao have already donated a lot for a new building, which will probably be erected during the coming school year.

San German has a good corps of graded teachers and two splendid school-houses.

The Antonia Martinez school has a principal teacher for the two highest grades, and 6 teachers, 1 for each of the other rooms. Two more rooms will be equipped as soon as the commissioner grants us two new schools, which are very much needed.

The Antonia Martinez is so called after the name of the lady who gave the building which it occupies. She has been dead for quite a number of years, and lately the enterprising school board of San German has decided to have this lady's picture enlarged and painted by a Porto Rican artist, Señor Francisco Oller. The picture, which is nearly finished, will be placed, with appropriate ceremonies, in one of the halls of Antonia Martinez building at an early date.

The Longfellow School has an acting principal, instructing two grades, and a lady graded teacher for each of the other three rooms.

The Longfellow School is an American building, accommodating 200 pupils. It is beautifully situated at the opposite extremity of the city from the other school, and is composed of a large number of children of the primary grades. From its highest grade pupils pass, on satisfactory examination, to the next higher grade of the Antonia Martinez, and there, under the capable instruction of its principal, will be passed through the eighth grade and fitted for the normal school or to take up the work of rural teaching.

Cabo Rojo has also two good school buildings. The J. L. M. Curry Building is a new and very substantial structure. It has 4 teachers, 1 principal, and 3 graded, among them one young lady who is in charge of a first grade. The entrance hall of the building is adorned with a picture of Mr. J. L. M. Curry, after whom the school was named. The picture is an excellent one, and was presented to the school, together with sufficient money for a prize medal for the best pupil in the English language, by the son of that gentleman, an actual resident of Atlanta, Ga.

The Betances School is an old stone building, containing two large rooms for the same number of schools, and has a male teacher for each room. The building went through very important repairs a couple of months ago and looks now quite neat and clean.

Maricao has only one schoolhouse. This is of stone and rented. It is under the charge of 3 male graded teachers. One grade is taught by an American, who has also to give instruction in English to the other rooms.

The local board of education has often expressed the desire of having a lady teacher to take charge of the first grade, as they say, with reason, that a man can not do as good work with small children, but the difficulty is where to find a lady willing to take up her residence there. Next year Maricao will be the owner of its own public school building.

We have already one night school in operation in the city of San German. It is well attended by working young men, and the wonderful progress they have made during the present year in reading, writing, and arithmetic is a proof of the competency of their young teacher.

There are applicants enough for another night school in San German, and application has been made for a night school in Cabo Rojo. It is to be hoped that our own wishes and those of the people of Cabo Rojo will be gratified before long by the commissioner.

The work of the agricultural teacher, who goes several times a week to Cabo Rojo to give instruction in agriculture to the pupils of the Garfield School, situated in the suburbs of that town, is excellent. He is a good teacher and understands his work thoroughly, but as very little or no interest at all is taken in agricultural matters by many of those who live around the school, it is to be feared that the success of the school is greatly endangered.

Five rural teachers of this district have been admitted to the normal school to take a three months' course during the present school year. Two young men were sent during the first term of the year; one during the second term, and two—one young man and a young lady—are now taking the course of the last term. Those who have returned have been greatly benefited by this course of study and have resumed their work with new ideas of teaching and a better understanding of American methods.

In San German English is taught by two competent lady teachers, who do their utmost to give a good knowledge of the language to their pupils.

The work is so divided that one teacher gives the morning hours in one building, and the afternoon is employed by both teachers simultaneously in the other. But their work is too heavy, and the addition of a third teacher has become a necessity.

These two teachers are doing away with the translation system and putting

the natural method into practice, with marked success. To this they add original composition in English by the pupils. This will be continued next year on a larger scale, when no Spanish at all will be allowed during the recitation.

The enthusiasm of the children over English conversation is quite apparent, and nothing pleases them more than to be conversing with their teachers in English during the class exercises.

English is taught throughout all the schools, beginning with the very first grade.

In Cabo Rojo and Maricao excellent progress has been made in English.

I am well pleased to state here en passant that the interest of the majority of the Porto Rican teachers is also increasing in this respect, as I have been able to judge by the attendance of teachers, both graded and rural, in the English classes, and the willingness of those who could not regularly attend on account of bad weather or any other just reason to have an additional class of two hours' duration in English every Saturday morning.

It is not too much to say that the order generally is improving in the city schools, and to their credit it may be said that the teachers are also doing their best. Some of our schools, graded and rural, however, have much yet to learn in this respect. No doubt the visit of the teachers to the States during the summer will be a good opportunity for them to learn what good discipline is and how to obtain it.

In the city schools, generally, the attendance is reasonably regular. Now and then, when there are fiestas (of which children would never think if there was no school on that day), the attendance is poor, but with only a little effort on the part of the teachers this could easily be remedied. However, there seems to be some improvement in this respect, as there has been a sufficient number present to continue the classes as usual during some of the more recent local festivities.

San German rural schools have, with a few exceptions, good attendance. In one of those schools the teacher, a very successful young lady, took up the matter of attendance herself; had circular letters printed urging parents to send their children to school. She had the circulars distributed among the people of the barrio, and the result she obtained has been quite satisfactory. Her school is certainly one of the best in the district.

The Cabo Rojo rural schools have all the year around an excellent attendance, but there the people are more concentrated, the rain is not so frequent, and children do not have to walk very long distances.

Attendance in the rural schools of Maricao has been at times very poor. This was due principally to the horrible condition of the roads. These are almost impassable during the rainy season, which prevails with few intervals throughout a large portion of the school year. The mud and water are often so deep that it is sometimes very difficult to ride a horse through, making it a hard trip even for the superintendent to visit these schools. However, owing to the exertions of the local board of Maricao, of the comisarios of the barrios, and of the teachers themselves, some improvement has been secured during the last few months.

It can be said that the general attention that teachers have given to their school work has been good during the present year. Very few cases of absence, even on account of illness, were reported. Unfortunately, one of our best rural teachers was seized with fever during the Easter vacation and died after a very short illness. We pay here our tribute to Luz Maria Medina and to her excellent moral character and to her fidelity in the performance of her school duties.

Examinations were held in January all over the island for rural teachers' certificates. Of about 200 or more applicants, only 18 received their certificates. Two of these were San German boys from Principal Rafael Garcia Cabrera's highest grade. The majority, not to say all of our teachers, both graded and rural, are his former pupils. He has sent out over 25 teachers from his classes during the past three years. No stronger proof need be given of his successful work.

Good results were obtained by the meeting of the teachers' institute held in San German last March. Greater enthusiasm was awakened in the teachers, and a happy rivalry aroused between San German and the other towns.

The pupils also manifested a warm interest in it, and the people in general showed their interest in education.

The discovery of Porto Rico was commemorated with appropriate exercises on the 14th of November, but Arbor Day seems to be the favorite American holiday here.

The question as to which should be the emblematical tree of the island, the mango or the royal palm, was enthusiastically discussed by boys and girls of the two schools. After planting a large number of trees on the grounds of each building the Longfellow School marched to the Antonia Martinez School, also called "Casa Grande." A large delegation of teachers and pupils marched forth to meet them, and after salutations on each side with their flags, all entered the Casa Grande for joint exercises. The compositions were excellent and the speaking especially good. Everybody knows that the Porto Rican children have a pleasing bearing in public, are free from embarrassment, and are graceful in gestures.

Washington's Birthday was celebrated by the schools separately. Many drawings in colored crayons ornamented the blackboards, and a profusion of floral decorations surrounded the gracefully draped flags of Porto Rico, Spain, and the United States.

In conclusion I wish to tender my thanks to the commissioner, the assistant commissioner, and other officials of the department of education who have so kindly and courteously and cheerfully given me needed direction, assistance, and advice during my first year as superintendent.

Respectfully submitted.

A. FOURCAUT,
School Superintendent.

The COMMISSIONER OF EDUCATION, *San Juan, P. R.*

SCHOOL DISTRICT No. 11.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF DISTRICT SUPERINTENDENT,
Mayaguez, May 30, 1904.

SIR: Following instructions received, I have the honor to forward you herewith a very brief report of the work of this district during the past year:

With the exception of the additional teachers employed in the Industrial School, there was no increase in the number of teachers granted to this district at the beginning of the school year. The prospects in October were very gloomy. All the school boards were heavily in debt, due to the fact that their receipts from taxes had not been as large as they had expected. In consequence, very few reforms have been made.

This district has suffered greatly, due to the low price of coffee and the inability of the taxpayers to comply with the regulations.

An attempt has lately been made to rescue the situation by raising loans, which, if successful, will place us on a firm basis by the end of the year.

Marked improvement has been made in every phase of school work, the most striking change being in the teachers themselves, who have become better qualified to discharge their varied duties.

The teaching of the English language, which is of such great importance, and on the acquisition of which so much depends, has been harmonized by the adoption of the pamphlet issued by the department of education, which is responsible for the rapid and consistent advancement made this year.

I feel convinced that the teaching in the lower grades should be in both Spanish and English, whenever possible, and from the sixth grade in advance entirely in the English language, Spanish being taught merely as a subject in the higher grades. Beginning with the fourth grade, the English teachers could advantageously teach one or two subjects daily in the English language. Many of the native teachers will be able next year to conduct all their classes in English, and most of them know sufficient to make a beginning in the lower grades with one subject daily.

As prophesied last year, the Mayaguez Industrial School has quite outgrown its present building. Its growth has been marvelous, and the community interest displayed in it augurs well for its future. It will be a happy day for Porto Rico when each large town can boast of such an establishment. The work of the Farragut High and Graded School has met with many and serious interruptions; the resignation of the principal, the sudden death of his successor, the resignation of the eighth grade teacher, the epidemic of typhoid fever, have, naturally, interfered greatly with the successful administration; but, after all, satisfactory work has been accomplished, notably so in the English

language. With the exception of the epidemic referred to, no serious interruptions have been caused in any of the other schools. Both at Mayaguez and Anasco a careful graduation of the pupils was made at the commencement of the year, a thing which had never been done satisfactorily before.

There are 15 pupils studying in the ninth grade, and we expect 20 more to join them at the end of the year. The combination of the high with the industrial school, and the offering to the pupils of two courses—the commercial or the industrial—is to be recommended.

The training class for nurses began with 20 students, but for lack of proper facilities and the necessary cooperation on the part of local authorities it has been deemed advisable to discontinue it in its present form.

I think that at least 5 of the 10 students who now attend will make excellent nurses.

The various night schools have done excellent work, having afforded an opportunity to many poor young men of acquiring the rudiments of a useful education.

The unsatisfactory financial condition of the school boards has compelled us to discontinue the agricultural schools, as such, and convert them into rurals until larger budgets and increased community interest warrant their continuance, which I trust will not be long.

The establishment of an agricultural school at Mayaguez in connection with the industrial work, where the pupils could avail themselves of the second advantages offered by the United States agricultural experiment station, would undoubtedly prove a great success.

We have already secured a suitable rural school building and an acre of land adjoining the property of the experiment station. Such a school, under efficient control, by the admission of the sons of respectable farmers to the classes and to witness the experiments, would prove a boon to the neighborhood. Lectures might be given from time to time to the farmers themselves.

The rural schools in the coffee-growing districts were all nearly empty during the first term, and I think that it would be wise to defer their opening until January, as it seems to be indispensable that the children must work during the harvest in order to provide themselves with clothing. In my opinion a six months' school year, with a modified course of study, is sufficient at present for the majority of the rural schools. This year it has been necessary to transfer many rural schools to other locations on account of the irregular attendance of the pupils, while in the city schools we have been obliged, in order to meet the demand for admission, to keep some pupils on half-day sessions only. The average attendance during the third term is very satisfactory.

A commodious 4 room schoolhouse has recently been erected at Anasco by the department of education which, however, will only be sufficient to seat half the pupils at present attending, and it is our intention to have another of the same size next year. The new schoolhouse at Las Manias will probably be constructed before December, and we hope, if we obtain the desired loan, to erect a 10 room building at Mayaguez in the near future, to be followed by several rural schoolhouses. The Rincon graded school has not been satisfactory, and I would recommend its conversion into two rural schools and the creation of two additional graded schools at Anasco.

During the year the department gave the opportunity to 5 young rural teachers from each district to attend the Insular Normal School for three months. Although the time allotted was short yet it has proved long enough to have wrought a marvelous change for the better in the methods employed on the teachers' return to their respective schools.

On March 24 a novel and important feature was introduced into the educational machinery of the island, viz, the celebration of the first teachers' institute, under the able direction of Mr. P. Miller (Insular Normal School). Various opinions were rife as to the object of this important factor in the educational system, and many teachers regarded it with suspicious eyes; but when the real purpose became evident the teachers warmed up to the work, taking an intelligent part in the different discussions, and displaying a creditable knowledge of modern pedagogy. The event terminated successfully amid applause and mutual congratulations, with the unanimous wish that it should be of annual recurrence. On the evening of the same day a large public meeting in the interests of public instruction was held in the theater. The speeches of Dr. S. M. Lindsay, Mr. C. H. Ames (Boston), and Don M. Fernandez Juncos enlightened the people on various phases of educational work in general, and a few local celebrities lauded the splendid progress made in public instruction on this island. The department

of education, ever watchful for the best interests of the people, has in prospect a scheme which will do more to Americanize the natives than anything yet proposed. The scheme referred to provides for the sending of 600 native teachers to study at the universities of Harvard and Cornell during the summer vacation. Free transportation will be afforded and the greater part of the funds necessary to defray all expenses has been contributed by friends in the United States. The Porto Rican teachers are very grateful for this munificent offer and as many as can possibly do so will eagerly avail themselves of this unique opportunity to expand their social and intellectual horizon and on their return they will delight to propagate their new ideas throughout the length and breadth of the island.

The various changes recently made in the school laws are beneficial and meet with the approval of the majority of teachers.

I am glad to relate that no case of corporal punishment has occurred in the district this year; nor has any teacher been suspended for any reason whatever.

In the teachers' conferences, celebrated from time to time, ample proof has been given of the rapidly increasing efficiency and zeal of most of the teachers, and the large number of young applicants for the next examination for teachers' certificates is both gratifying and encouraging.

Respectfully submitted.

JOHN MELLOWES,

Superintendent Eleventh District.

The COMMISSIONER OF EDUCATION, *San Juan, P. R.*

SCHOOL DISTRICT No. 12.

DEPARTMENT OF EDUCATION OF PORTO RICO,

OFFICE OF DISTRICT SUPERINTENDENT,

Aguadilla, P. R., June 1, 1904.

SIR: Herewith I have the honor to submit my annual report for the school district of Aguadilla for the school year 1903-4.

Comparing the work of this year with that of last, I notice a general improvement in the work in all its branches. As was to be expected, the teachers are learning the workings of the system better and are responding more willingly to its calls upon their energy and time. Hitherto many teachers were under the impression that any call upon their time after school hours was an imposition, but I am glad to notice a gradual change for the better in this respect. This year most of the teachers have done a certain amount of work in their homes, such as arranging the lessons for the following day, preparing for the examination in English, and reading their school journals. The greatest fault with which I have had to contend is a certain annoying carelessness about details, though there has been improvement here also. Most of the teachers are beginning to realize that if a piece of work is to be done to-day, it means to-day and not to-morrow; that if twenty minutes are set apart on the school programme for a certain class, it means that twenty minutes and not twenty five are to be devoted to this class; that if a report is needed this week, it is expected to be in this week and not next. The great majority of the teachers are more careful in the use of school property, especially the books, which are found now properly covered and in fair condition after a year's use. There is a general improvement in the methods of teaching, which are marked by a drawing away from perfunctory repetitions in history and geography, and more particularly from the teaching of arbitrary rules in arithmetic. I want to take this opportunity to dissent from the generally expressed opinion that the Porto Rican child is naturally weak in reasoning powers, especially in arithmetic. I have found that in those schools where the pupils are weak in arithmetic the teacher is also weak, and where the teacher uses the rational method of teaching the pupils are relatively as far advanced in this subject as they are in the rest.

The teachers of English have worked earnestly and intelligently and, considering the difficult conditions made by the system under which they are working, certain progress has been made, but it is not what it could be under a different arrangement. At present necessity compels the teacher of English to use a set of school readers as a guide and the pupils get only a limited vocabulary, and this along a certain line. They learn very few arithmetical and geographical

terms—the very things that they should know if their English is to be of any service to them in the future. The Porto Rican child must be taught practical English, the English that he will need in commerce and agriculture, and this he will learn only by being taught arithmetic and geography in English. During the present year I had occasion to visit the Ponce Graded and High School where, with the exception of the first grade, all the work is done in English. I was agreeably surprised to notice the progress that the pupils were making in the English language, and this apparently without any sacrifice in the quality of the work. It is my intention to try to establish a grade on this basis in Aguadilla next year.

We have had the teachers' classes in English again this year and the examination has shown marked improvement in the work of some, and neither improvement nor deterioration in the work of others. There is still a third class, and this is composed of the teachers who did nothing in the examination, and these are generally the ones who are weak in all the other branches. I think that it would be a good measure for the department to establish a system of recurring examinations in all branches taught in the schools—say an examination in one or two subjects every year for those teachers who do nothing in the examination in English, making a successful examination necessary for the renewal of the teacher's license. It is safe to say that this system would eliminate a number of incompetents from the ranks and yet it could not be said that it was done because they found the learning of English difficult.

There was something said last year about an effort that the department would make to establish a departmental school journal. This, I believe, would be of much practical benefit, as it would impart many hints and a great deal of information, a thing which it is impossible to do by any means of circular letters and the personal direction which the superintendent may give. There are new methods and new ideas coming up every day, of which some of us may be ignorant and which the school papers we receive do not touch. The department is in a position to know of these improvements and to judge to what extent they should be applied to our schools. Such a paper would help to harmonize our work, and the suggestions, coming as they would from the department, would have the force of law. This year I advised the teachers of my district to subscribe for a school paper, and also to buy some books on pedagogy other than the ones supplied by the department, but as the paper is in English only a limited number of teachers could use it to advantage. It is a pity that so many teachers, used to a paternal form of government which did all their thinking for them, can not be taught to be more self-reliant and to take the initiative in affairs.

During the present year we have improved the school buildings generally throughout the district. The Lafayette School, in Aguadilla, built three years ago, was given a general overhauling and fenced in. This fence was very necessary, as the porch of the building was becoming a sort of lodging house for every tramp in town. At San Sebastian we have been using a new 4-room building built by the department and the municipality jointly last fall. The town appreciates this building greatly, and the school board is making provision to beautify the grounds and put a fence around them. Almost all the rural schools in the district were either painted or whitewashed at the beginning of the year; 7 buildings were abandoned for more suitable ones; and 7 more were materially enlarged. If the matter can be arranged financially, it is the intention of the municipalities of Aguadilla and San Sebastian to build their own schoolhouses. Buildings better than the ones we are now using can be built at prices ranging from \$200 to \$250, and we are now paying in the municipality of San Sebastian \$36 annual rental for each rural schoolhouse, and an average of \$50 in Aguadilla; in other words, the municipalities, if they carry out their present intentions, will own the buildings in five or six years. A building which we should leave, but can not for want of a better one, is the Baldorioty Graded, in Aguadilla. We are endeavoring, with fair prospects of success, to get the use of the infantry barracks near the Lafayette School until the municipality can build a suitable school building. We have improved the furniture in the different schools to a certain extent, but have been hampered in making greater improvements by lack of funds.

This year the budgets of the Aguadilla and Aguada school boards will show deficits, although for small amounts, probably not exceeding each \$600. In Aguadilla we have been hampered all year on account of the treasurer of Porto Rico retaining the school board's money, along with certain amounts belonging to the municipality, for debts contracted by the latter. I am glad to see that

under the new school law the school board will receive its money promptly, and we shall thus be relieved of a great deal of annoyance.

Coeducation is no longer a problem in this district nor, I believe, in the island. In Aguadilla this year we had two cases where the school board was compelled to expel two boys from school, and the action was so prompt that parents were convinced that their girls were perfectly secure from insult in the schools.

The attendance upon the whole has been better this year than last, due, no doubt, to the fact that the teachers are becoming more insistent about enforcing attendance, and also that the parents are realizing more and more that the law will be resorted to when necessary. The matter of attendance is a problem more in the rural than in the town schools, where there is always a long waiting list. The attendance is a problem in the rural schools because of the coffee crop, a great many children being brought into requisition during the gathering season. Moreover, the poverty of the parents, the long distance which a great many children have to travel to get to their schools, and, lastly, the bad condition of the roads in rainy weather, are detrimental to the attendance. The children of the rural districts are provided only in rare instances with umbrellas, and never with rubbers, and this means that if they come to school on a rainy day they must sit in their wet garments all day and run the risk of catching cold with possible serious development. This drawback, of course, will remain until such time as the economic and social conditions of the small farmer and "peón" are greatly improved.

Tardiness is another thing against which we are constantly fighting, not only in the rural but also in the town schools, although not so much in the latter. I think that this could be diminished in the rural schools if they were provided with good-sized bells to notify the children of the opening hour. There are very few parents living in the rural districts who have timepieces, and the matter of reaching the school on time is a question of guesswork. The child either arrives to the school long before the hour set for opening, thus entailing a hardship upon him, or so late as to lose a number of the first classes, thus disarranging the school programme.

Then comes the matter of shortening the day for the smaller pupils. I have found it impossible in the rural schools to let out the first and second grades before the rest, because this would necessitate the letting out of the larger brother or sister also, as the first and second grade pupils are usually so small that they can not go home alone. I have overcome this difficulty by giving the smaller pupils two half-hour recesses instead of two fifteen-minute ones.

It is almost an impossibility to graduate a class as the pupils, on one pretext or another, generally leave school before they get to the eighth grade. I believe that our course of study is too intensive, because children living in a tropical climate age more rapidly than do children in a temperate one, and when they reach 16 or 17 years they are generally young men and young women, with all the habits of their elders. Under these circumstances it becomes hard for some to remain under school restraint, and others are compelled to leave school to help their parents in meeting the expenses of the home.

The three school boards of the district have worked in perfect harmony with me and have given me their cordial support in every way. They have had their regular meetings invariably on time and there has always been a quorum present.

Respectfully submitted.

DANIEL F. KELLEY,
Superintendent of Schools.

The COMMISSIONER OF EDUCATION,
San Juan, P. R.

SCHOOL DISTRICT No. 13.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF DISTRICT SUPERINTENDENT.
Camuy, Porto Rico, May 26, 1904.

SIR: I have the honor to submit herewith my annual report on the schools of the district of Camuy for the year 1903-4.

Permit me to say that this report is as near as possible a concise diagnosis of the present condition of the schools of the district, their general growth and

development during the past three years, together with a few suggestions looking to their betterment.

The report, in treating of the scope of work covered, does not comprise a complete description of the details, these being left out to give place to the more interesting and important features. It will be observed that any particular or radical changes have not taken place, but you will note the gradual onward march that has been made, comparing the present conditions and results of this year's work with that of two years ago. Those who have assisted in the organization of the schools before the advent of civil government on the island can gaze with much pride and satisfaction upon what is to-day an efficient system of free public schools, created out of the old Spanish system found in existence at the time of the American occupation of the island.

The work of adding a new schoolhouse to the district each year is highly appreciated by all those interested in the welfare of schools. One new building (Emerson Rural School), spoken of in my last report as being under construction, has been completed and presents a very neat appearance. The land needed for the site of this schoolhouse was kindly donated to the people of Porto Rico by Mr. Juan A. Casaña, a wealthy farmer near Camuy. All arrangements have been made by the municipality of Isabela for the construction of a 4-room frame schoolhouse, which will be completed during the summer vacation and made ready for use for next school year.

The plan adopted by the department of advancing all the money to the municipalities for the construction of schoolhouses, and then allowing a certain number of years for them to repay half of the cost of the same in equal annual payments, is a good one, and it is commendable for the reason of its teaching the people that they are expected to assist the department in the work of school extension. Besides, the affairs of the municipality will be more carefully and economically administered, knowing that they are directly responsible for the payment of a certain sum to the treasurer of Porto Rico each year.

This is a very liberal offer on the part of the department, and it should be taken advantage of by every municipality that is in condition to do so.

In the way of new modern furniture we have not been able to add anything to the graded schools this year; but all the rural schools have been better provided for. The amount of blackboard surface has been increased in all the schools, and this alone has materially aided in securing good results, especially in arithmetic.

More desks and benches have been placed in each and every one of the rural schools to avoid so much crowding and consequently bad order. The rural schools have also all been supplied with water filters. A sufficient supply of material and text-books have been received and placed in the schools when needed during the year.

There has been a decided improvement in the character of our teaching the past year. I do not hesitate to say that this has been our most marked advancement. Better methods have been introduced; our scope of work has been made broader; more practical ends have been kept in view, and the results have been of that concrete nature to be of lasting benefit to the children.

We have also gradually introduced more incidental work, which has in many cases not received the attention that it should, for the overzealous desire of the teachers to conform too closely to the Course of Study; but we have endeavored to have the general plan followed and the studies taught in accordance with our Course of Study and at the same time laboring to inculcate into the teachers ideas of individualism, with open free effort in the field of their work.

Five rural teachers were sent to the Insular Normal School the past year from this district. With one exception they all did good work while there. They have shown marked improvement in their class-room work after returning to the district. In some cases we were obliged to employ substitute teachers to fill the vacancies of the regular teachers, who were not always desirable for many reasons, but it was imperative that these teachers be sent to the normal school, even if it was at some sacrifice to do so. We must have good rural teachers if we are to have good rural schools. The normal school can assist us in reaching this desired end. Five rural teachers can be given some training each year from each school district on the island, besides the recruiting that the superintendent can do himself, and in this way it will not take long to work a radical change in the teaching personnel of the rural schools.

I can speak with special pride of the perfect harmony that has existed among the teachers during the past school year. In former years this has not always been the case in all parts of the district during the entire school year. It is

now thoroughly understood that good conscientious work is all that can assist a teacher in his progress in the profession, and that influence is of little value in securing any firm standing with the department. We have employed every means at our command to put a premium on all honest, faithful work in the schools. In turn we have endeavored to report with the same degree of accuracy work that has not been up to the standard required. The conditions under which teachers of the district work are so widely different in many cases that some of equal ability do not secure equal results.

All conditions have always been taken carefully into consideration when reports have been made to avoid, if possible, any ground for charges of unfairness.

Quite a number of teachers' meetings were held in the different towns of the district, principally during the third term. I wish to mention especially a series of meetings that were held by the graded and rural teachers of Isabela, presided over by the acting principal of that town. The general plan followed in these meetings was the explanation by each teacher of his method of teaching a certain branch in his school at each meeting. Very favorable reports were received by this office of similar meetings held in other towns of the district.

A pedagogical conference was held in this district at the headquarters of the superintendent on March 25 and 26, at which all the teachers of the district attended, with two exceptions. This conference had been previously arranged for by the department, being under the direction of Mr. Felipe Janer, of the Insular Normal School. As the programme was somewhat extensive, we were not able to dispose of all the topics in two days.

I am pleased to say that this conference was of inestimable value to the teachers. Enthusiastically presided over by Mr. Janer, the teachers in a friendly manner frankly discussed a great number of the most difficult problems that they had found in their work. I only regret that this conference was not held earlier in the school year, but it might be arranged to take place earlier next year, if a conference is held. On the afternoon of the second day of the conference the Commissioner of Education, Dr. S. M. Lindsay, was with us and delivered an address to the teachers in Spanish, besides talking to them at some length in regard to the proposed trip to the States during the summer vacation.

During the past school year, or up to the time of the writing of this report, I have made 200 visits to the schools of this district. Of all visits made during the year the department has not a record, as some were short, and where the same were made several times to one school in any one month no official report was sent to the department.

Having had the territory of my district reduced, and also the number of schools, I have had much more time to visit the schools and remain some length of time in each school. Visits from one hour and a half to three hours duration have been made, and as a general thing more time was spent in the rural schools, in view of the fact of their generally needing more help and attention than the graded schools, thus adopting a somewhat different plan of school visitation from that of last year. The difference does not consist only in the time spent in the school, but I endeavored to focus my attention and time on those parts of the district most in need of help; thus it can be seen by reports that some rural and graded schools have been visited as high as twelve times during the school year, while others were visited only four or five times.

I am pleased to say that the daily attendance of the pupils of the district has been better than last year. A letter was sent out from this office at the beginning of the school year directed to the parents, asking for their cooperation in securing a regular and punctual attendance. This letter was kindly received and heeded, and to this I feel confident is due in great part the improvement in attendance. The compulsory-attendance law has been strenuously enforced in cases of necessity, but such cases have been fewer this year than last. Taking into account the good of the entire school, we have quickly eliminated the incorrigible whenever the reputation and morality of the school were endangered. It was not necessary to do this many times, but in cases of necessity, when a child was of bad heredity and could not be reformed after a given time, it has been quietly expelled.

There seems to be a more thorough, free understanding of the aims and purposes of the schools this year. I have always found parents glad to cooperate with us in our work when once they understood its merits and purposes. Judicious consideration of the home life of each child has been made an important

factor in our work, and was emphasized emphatically by us in the conference held March 25 and 26.

I am convinced that there has been and is to-day entirely too much absolute indifference on the part of both Porto Rican and American teachers in regard to the home life of the children and some of the difficulties on the part of the poor parents to keep their children in school. The teacher might often assist the parents in small difficulties that arise in regard to the welfare of their children, but many of the poorer class do not feel that they are well enough acquainted with the teacher to consult them in regard to such matters. If it is necessary to become well acquainted with the pupils in the schools, it is also equally essential to become acquainted with them in their homes. I should be pleased to see the teachers consider more seriously this important factor in their work, and in the next school year endeavor to be as well acquainted with the parents as the children themselves. Public opinion has grown to no small extent the past year. Many misapprehensions have been removed, and skeptical parents have become enthusiastic supporters of our system of public schools. We have improved every possible opportunity to cultivate a healthy public sentiment in favor of our schools, and to-day there remains no doubt in the minds of all well-meaning and well-thinking people of the efficacy of our work.

With the exception of the town of Hatillo, good progress has been made in most of the grades in the study of English. Where there has been frequent changes in the teachers, as has been the case in the above-mentioned town, the work has suffered not a little. There are many difficulties yet to be overcome in the teaching of our mother tongue to the Porto Rican children. The work has been carried on this year somewhat uniformly in all the schools. Certain defined ends have been kept in view by the teachers, and in the main, the methods have been followed as laid down in the manual published by the department. The majority of the teachers of English appointed in this district the past two years have come in the right spirit and have been conscientious and painstaking in their work. There have been a few who have not been so. Having little sympathy or good wishes for the welfare of the island, working only to finish the year, without any expectation of ever returning to Porto Rico, it will be understood that the work done by such teachers has been void of any concrete results or benefits for the children.

I should recommend some change in the text-books now used for the teaching of English and that all the teachers be reappointed to the same town in which they taught the previous year, unless for just causes their transfer has been asked for by the superintendent.

Although the general practical results of the year's work have been satisfactory, yet I do not feel that we have made the proper advancement because of the lack of good pedagogical reading for the teachers. The superintendent can only make a limited number of visits to each school during the year, and he therefore needs the assistance of a small pedagogical library to which to refer the teachers as he sees their weaknesses on certain points in their work.

I would recommend that the department purchase and issue to the superintendent about one hundred of the leading works on pedagogy next year if there should be funds available for such.

These books could be kept by the superintendent at his headquarters and given out to the teachers as he saw the necessity for same. This is especially necessary where the teachers of a district have no access to any public library. Books should be in the Spanish language if it is possible to get them.

As last year, we have endeavored to encourage the reading of some good educational journal, and have been successful in seeing a number of the teachers of the district subscribe for the Popular Educator and Primary Education, this being an advantage in keeping the teacher posted on the latest methods and improvements in the schoolroom work, as well as being excellent practice in the reading of good English. School libraries we have not been very successful in establishing, owing to the fact that the school board could not render us any assistance, and also that many of the teachers had no assurance of remaining in one town more than one school year. It is quite natural that they would be averse to making any contribution toward the establishing of a library, unless they were to reap some of the benefits from it.

It is my intention this year to ask the school board to donate something toward the purchasing of a small number of books both for teachers and pupils in each town. School libraries thus started can be added to a little each year, and in this way it will not take long to have a good collection of books.

English has been studied with much care by most all the teachers. I can say that they have worked conscientiously and have no doubt accomplished more in the language than any previous year. I am of the opinion that too much was required of them and the scope of work too extensive to be completed in the time given. With two exceptions, all the teachers were examined on April 30, and I feel that they accomplished all that could be expected of them.

The agricultural school in Quebradillas has not been as successful this year as last, although the garden presents a much neater appearance. The attendance was not as good as I had expected it would be, due to the desire of many of the children of the barrio to attend school in the town. Quite a number of fruit trees were planted last year. The condition of these trees at the present time show that they have had excellent care. More could have been accomplished if the school had received better local support. The school board gave it nothing, and for this reason we were unable to extend the garden to include more land adjoining, which had been given to the school.

I have at present 20 applications on file in my office for the teachers' examination to be held on June 2, 3, and 4. The most of these applicants are from the graded schools of Isabela and Quebradillas. It is to be hoped that a number of these will be successful in securing certificates, as they will probably be needed to fill some vacancies next year.

The school boards have not met their obligations promptly this year for the lack of funds. I see by the new school laws that a welcome change has come in the financial administration of the boards, and we will next year, no doubt, be able to receive more support from this source. I can say that the boards in this district have given me their support whenever asked for during the past year, but entirely too much of the work of the school board must be done by the superintendent.

I wish to thank the presidents and other members of both the Camuy and Isabela boards for their constant endeavor to assist us the past year. From funds furnished by the school boards this office has been furnished with a Remington typewriter and an Edison mimeograph, thus facilitating the office work very much.

Arbor Day, Washington's Birthday, Flag Day, and others of less importance were all fittingly celebrated. Considerable increase in interest can be noticed in these celebrations from year to year, as the teachers acquire experience in arranging for and conducting them, and the children learn to consider it a duty as well as a pleasure to participate in their celebration.

Before closing this report I wish to thank the commissioner of education, the assistant commissioner, and the members of the corps of assistants of the commissioner's office, who have all ably contributed to the success of the year's work in the district.

Respectfully submitted.

E. HUTCHINSON,
Superintendent of Schools.

THE COMMISSIONER OF EDUCATION,
San Juan, P. R.

SCHOOL DISTRICT No. 14.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF DISTRICT SUPERINTENDENT,
Arecibo, May 21, 1904.

SIR: I have the honor to submit herewith my report for the school year 1903-4.

The district of Arecibo is formed by the municipalities of Arecibo and Lares. The general conditions in these two municipalities are entirely different, due to the fact that Arecibo is on the coast, while Lares is far up in the mountains. This difference, together with the difficulties of transportation from Arecibo to Lares, on account of the long distance and of the bad road, has made the work quite difficult as far as the uniformity and harmony in the organization of the schools in both municipalities is concerned. The schools of Arecibo have attained far better results than those of Lares, and their organization is much more satisfactory.

Some changes have been made in the organization of the schools in Arecibo

this year. There were two principals last year, each one being in charge of a number of graded schools and each teaching a grade of his own. The two groups of schools had one assistant principal over both of them. Early this year and upon the resignation of one of the principals, his position was suppressed, and there remained only one principal in charge of all the schools of the municipality, rural and graded, with no grade to teach and discharging the duties of supervising principal. In each one of the buildings in the city there is a teacher in charge of the schools, discharging the duties of assistant principal without any extra pay for that service. This organization has proved satisfactory, and has secured a certain uniformity in the work, especially in the classification and the correction of minor defects which were noticed and criticised by the superintendent, but which, owing to the great number of schools in the district, could be thoroughly corrected only with the aid of a competent principal.

Constant efforts have been devoted all through the year for a fair and uniform classification in the schools of the district. Yet the chief result has been in the preparation for the work for next year. At the beginning of the present year all the children in the graded schools were examined, and during the year we have been constantly rectifying the classification. Plans have been made to hold a final examination in June, and the result of this examination, together with the class record of each pupil, will enable us to make the classification for next year on a solid basis. The promotion of children will be made in this office, after considering the data which the examination and the children's class records may furnish.

The conditions of the buildings used for schools in the district are not as satisfactory as is desirable. The graded school buildings in Lares and a few of the buildings in the country are in good shape. The graded schools of Arecibo are located in three different buildings. One of them is a fine 6-room brick building, property of the people of Porto Rico. One is a private building rented by the school board and not at all suitable for schools. The other one is an old building owed by the ayuntamiento, and is in very poor shape. These two buildings do not have the necessary sanitary conditions, but no others could be found in the city.

The schools in the district are fairly well equipped, although the furniture and equipment of the rural schools of Arecibo are not what they ought to be. The schools in Lares are better equipped, and with the exception of four rural schools all of them have modern individual desks. All the schools in the municipality are supplied with filters, glasses, and other necessary implements.

A satisfactory improvement has been made in the teaching force of the district, partly due to instructions given them in circular letters sent from this office, and mainly owing to the interest and eagerness which the majority of them have shown in their work. The teachers of English have done most satisfactory work, not only in the schoolrooms but also in giving the rest of the teachers their support and help. The results obtained are the best which could be attained with the system followed at present in English instruction.

Two teachers' conferences were held in Arecibo during the present year. One of them was conducted by the superintendent, with Mr. Enrique Hernández as representative of the department of education, and the other was conducted by Mr. L. R. Sawyer as institute director. In both meetings we had a full attendance, and the papers read showed a pleasing improvement in the methods of teaching on the island. A brief report of the last meeting was submitted by me to the department, and some changes in the organization of said institutes were recommended.

I am glad to state here that I have received earnest support and constant help from the school board of Lares and from the present school board of Arecibo. In Arecibo the board is working under adverse circumstances on account of the little time they have been in office and of the unwillingness of the ayuntamiento to give the necessary money for the maintenance and proper equipment of the schools. The ayuntamiento, when assigning the percentage for school funds, gave only 25 per cent of the funds received from the insular treasury, not giving anything from the taxes collected in the municipality. This was a violation of section 19 of the school laws, and left the board without money enough to keep the schools of the municipality in good condition. The board has been trying for the past two months to make the ayuntamiento pay the full amount due, but thus far without success.

It is with the greatest regret that I state that the ayuntamiento of Arecibo has shown very little desire to help improve our public school system. It refused

to approve the plan of the school board for contracting a loan to build school-houses. According to the plans of the school board the interest and sinking fund could have been provided for with the school tax, and \$500 more that the ayuntamiento would have had to pay. A meeting of the council was recently held to consider the matter, and the plans were rejected without any discussion.

In closing the present report, I must thank the department of education for the support and help given me, and which has enabled me to struggle against the adverse conditions under which the schools of Arecibo have to work.

Respectfully submitted.

E. LANDRÓN,
School Superintendent.

The COMMISSIONER OF EDUCATION,
San Juan, P. R.

SCHOOL DISTRICT No. 15.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF DISTRICT SUPERINTENDENT,
Utado, P. R., May 31, 1904.

SIR: I herewith submit my annual report for the school year 1903-4.

On taking charge of this district, about September 15, 1903, the number of teachers allotted to the district was 54, classified as follows:

School.	Utado.	Adjun- tas.	Total.
Principal	1	1	2
Graded	9	6	15
Rural	21	10	31
English	2	2	4
Agricultural	1	-----	1
Night	1	-----	1
Total	35	19	54

The school year opened September 28, under favorable conditions. The necessary work of enrolling pupils and organizing the several grades was about completed by the end of the first week. The rural schools, unlike the town schools, did not fill at once, nor was the attendance satisfactory during the greater part of the first term, the cause of this state of affairs being due to the fact that the gathering of the coffee crop and the first term of the school year coincide, and at this time children, as well as parents, engage in picking the coffee berry; and once the season is over, all remain idle for another year.

The corps of teachers engaged by the school boards of the two municipalities was found to be equal to any I have seen in Porto Rico as regards intellectual qualifications, and as to the spirit and interest shown by them in their work during the present year they merit special mention. In almost every case they have accepted criticism and advice in the spirit in which it has been given, and they have worked hard and faithfully to carry out all instructions, in order to raise the standard of the work in the schools under their direction. In this task they have been able to consult very few pedagogical works. It will prove a great benefit if the circulating library, as proposed by the department of education, can be put into practice.

At the opening of the year there existed 7 vacancies in the teaching force, all of them being in rural schools. This number has been reduced to 3, and it is hoped that next year will see all the schools open at the beginning of the school year, and that possibly we shall be able to add to the number already established.

The rural teachers throughout the district have done very creditable work, considering the conditions prevalent in the mountainous districts of the interior. In the great majority they are young men, their average age being about 25 years. Many of them promise to develop into excellent teachers, and they have shown by their work that they are working not for to-day alone, but are striving to prepare themselves for the future. On the other hand, there are a few who promise little as teachers, and whose interest in school work is greatest when the closing hour is at hand.

Due to the great difficulty encountered in finding substitute rural teachers, it has been impossible to send more than two rural teachers from this district to the Insular Normal School for a three-months' course.

The conditions which prevail in the graded schools are not all that are to be desired. In Adjuntas they have reached a higher stage of development than in Utuado. The principal of the Utuado schools has worked hard to raise the standard of the schools under his direction, but the progress has been slow, and is not as satisfactory as we would wish. This is due in part to the lack of a proper school building, the lack of a proper degree of cooperation on the part of the parents, and to the fact that several of the teachers have not shaken off entirely the old system under which they were educated, although they are working hard to do so and deserve credit for the efforts thus made.

The work in English has advanced rather slowly, but it has advanced. In the Adjuntas schools the progress made has been very good, the pupils of the sixth and seventh grades doing a large part of their class-room work in English, and it is hoped that beginning next year all the class-room work of the fifth, sixth, and seventh grades will be carried on in that language. Great credit is due the principal and English teachers for having made this possible. In Utuado this progress has not been possible, as the teachers of English have been changed almost every year, and in many cases this change has brought a teacher fresh from the States with no previous experience in teaching English to a foreign-speaking people, and with no knowledge of the Spanish language. That this is the cause of the little progress made here is demonstrated by comparing the conditions which have prevailed in Adjuntas and the results obtained there. One of the two teachers has been located there for five consecutive years, and the other has had four years' experience as an English teacher on the island, with two years in Adjuntas. The changing of English teachers from one town to another should be avoided as much as possible, as it is a proven fact that their work suffers seriously as a consequence.

The efforts made by the Porto Rican teachers to master the English language have, on the whole, been serious and faithful. Many of them, aside from the lessons given in preparation for the English examination by the English teacher, continue to study with private teachers throughout the year. There exists a desire on the part of all of them to know the English language, but there are some who lack the power of application necessary to realize this desire, which is rendered more difficult and the language loses much of its interest, as there are almost no English-speaking persons with whom to practice. To arouse interest and to aid the teachers in their work it was proposed to organize an English club, which was carried out in February, the charter members being almost exclusively teachers. The club still exists, and it is hoped that within a few weeks it will be comfortably installed in one of the best houses in Utuado, with new furnishings throughout. One of the rules of the club forbids the speaking of any other than the English language under penalty of a fine of 1 cent per word thus spoken.

Our single agricultural school has not been able to carry out the plans made by the teacher, nor has the work done been such as should be done by a school of this character. The children who are able to attend school in the barrio where the school is situated are, as a rule, too young to do any real agricultural work, nor can they understand what they are doing. Hence we see the teacher obliged to spend an undue amount of time struggling with that elementary instruction which should fall to a rural teacher. Another almost insurmountable obstacle which stands in the way of ever securing good results from this particular school is the location of the schoolhouse and the character of the soil to be cultivated. The building is situated on what is in dry weather a brook, but which becomes a torrent after any considerable rainfall. Several meters of what was school land have already been washed away, and in its place we find sand and rocks. There is no doubt but that this damage will be greater unless some steps are taken to prevent it. The bureau of public works decided that it behooved the school board to carry on this work, but the financial condition of the latter has not permitted it. Recently there have been planted bamboo trees, in the hopes that they will take root and serve as a suitable barrier.

Fortunately the school has been under the direction of one who is unusually well qualified to teach agriculture, and for this reason alone has the school been able to do any real agricultural work. During the year 26 different kinds of fruits and vegetables have been studied, and a carefully prepared chart of the results obtained presented, showing in a clear and concise manner what has

been done. In all this work the teacher has not only sacrificed a great deal of time and labor, but he has also purchased the necessary fertilizers used at his own expense.

I would respectfully recommend that the agricultural school be placed in charge of a rural teacher, and that if agricultural work is to be continued here another piece of land be obtained and placed under the direction of a competent man who shall direct the work in agriculture exclusively, aiming to secure the most practical kind of results.

The night school, in charge of one of the regular graded teachers, has given elementary instruction to about 80 persons, ranging in age from 13 to 50 years, the majority being over 21. The attendance in a school of this nature is necessarily less regular than in a day school, due to the fact that the students are almost all working men and women. There have been enrolled during the year, tradesmen of all classes, laborers, policemen, and cigar makers. The work done has been very satisfactory, and indicates a strong desire on the part of the illiterate classes to better their condition.

During the first six months of the year 5 of the 7 graded schools in Adjuntas occupied a rather dilapidated building, the partitions between the several rooms being of cloth, and the general aspect leaving much to be desired. The other two schools were located in vacant tenement houses, widely separated, and not at all adapted to school purposes. In November the new school building was finished and accepted by the department of education. This new building is undoubtedly one of the handsomest structures erected for school purposes in Porto Rico, and is the only public building in the town of Adjuntas. It has four commodious rooms, and is equipped with modern appliances throughout. The site of the building is ideal, occupying a slightly elevated piece of ground on the carretera, leading from Adjuntas to Ponce. The grounds are ample and afford an excellent opportunity for the children to engage in all kinds of outdoor games and exercises. A new fence has been erected around the property and everything done to make both building and surroundings as attractive as possible. It is hoped that in the near future the local school board will be able to construct a retaining wall in front of the building.

Immediately upon its acceptance the schools were moved. As there were but four rooms it became necessary to find a suitable building for the remaining three schools. The owner of the building opposite consented to make the necessary changes in order to admit the three schools there. This change was advantageous in every way, as it not only provided better class rooms, but it also facilitated the work of the principal, and permitted the seven schools to gather in front of the new building for their morning exercises.

The building was formally dedicated Monday, March 21, 1904, on which occasion the governor of Porto Rico and the commissioner of education honored the town of Adjuntas with their presence and took part in the exercises.

In Utuado the graded schools are sadly in want of a suitable school building. At present four of the schools occupy a building originally constructed for a theater. The partitions are very low, the ventilation poor, and in no particular does it satisfy the demands of hygiene or pedagogy. On a warm afternoon, with 200 children gathered therein, the heat is terrible, and the attendance has been low, due largely to this fact. It is needless to say that it is impossible to judge correctly a teacher's work under these conditions. Good work can not be done. Of the remaining four rooms, three are suitable for school purposes. The coming year some change must be made if the town is to continue with the same number of schools. At present the ayuntamiento and the school board have under discussion the advisability and possibility of constructing a new eight-room building, fitted with all modern conveniences, and including an office for the principal. Whether they will be able to do this remains to be seen, but something must be done along this line if the educational work in Utuado is to keep pace with that throughout the island.

The buildings used as rural schoolhouses are of about the same character as those to be found elsewhere in Porto Rico. During the summer vacation they will all receive a thorough cleaning, including a coat of whitewash, and any repairs necessary to put them in condition for next year's work. In the barrio of Vivi Abajo, Utuado, an excellent 2-room frame building has been erected by the department of education. The original site selected for the building in the barrio of Vivi Arriba was abandoned, and a much better one found in Vivi Abajo. The building is in every way adapted to the purpose for which it was constructed, and with the building occupied by the agricultural school, is the only modern school building in Utuado. It is hoped that a new fence may be

erected around the property soon, as that is the only thing lacking. The two schools established therein were opened for the first time, January 11, and have been filled to the extent of their seating capacity with a very fair daily attendance.

The graded schools throughout the district are equipped with modern desks, except the two in the barrio of Jayuya. It has been impossible to obtain modern desks for these schools on account of the financial condition of the school board, but undoubtedly next year will see a marked improvement in these schools. The rural schools throughout the municipality of Utuado are fairly well equipped. In Adjuntas the condition is not as good as in Utuado, but the school board has made provision to provide the necessary equipment before the opening of the next year.

The question of securing a good average daily attendance in the public schools throughout the island is one which must occupy the attention of every superintendent to a greater or lesser degree. The attendance in the town schools has averaged very low, whereas in many of the rural schools, under adverse conditions, a better attendance has been obtained. The attitude of the teacher plays a very important part in bringing about the desired results. That this is so is made evident by the fact that in some cases, of two schools situated in adjoining barrios with the same enrollment and under practically the same conditions, one teacher has secured an average daily attendance of nearly 90 per cent, whereas the other has not brought the attendance of his school up to 70 per cent. The attendance of the children enrolled in the graded schools has been poor, due to the carelessness of the parents, who consider it more important that the children run errands or do a little household work than that they attend school. The attendance in the lower grades has been very fair, and this not because the parents have given the matter their earnest attention, but rather because they are not old enough to be of any use at home, and so are safe and out of the way in the schoolroom. This question has received a great deal of attention, and conditions are a great deal better. A letter was directed to all teachers instructing them to report any child who was absent from school for three days without a just cause. As a result of this, many fathers were denounced, and their attention called to the school law on the matter of attendance, and later several fines were paid. The local police court has in every case supported the position taken by the educational authorities, and it is safe to say that this difficulty will be largely overcome next year.

The school board of Utuado has been willing and ready at all times to receive any opinion offered, and has in a rather indifferent way worked to improve existing conditions. Due to the fact that many of the barrios are in a poverty-stricken condition, without so much as a single store, it has been impossible to contract teachers for all the schools. The board has decided to change, if necessary, the location of some of the schools, and, if possible, open the coming year with its full complement of teachers. In Adjuntas the work of the school board hardly deserves mention, as little has been done for or against the schools. They have been willing to do anything suggested, but have lacked the initiative. The one thing they have done which is worthy of mention was the construction of a fence around the property on which the new schoolhouse is situated.

At the beginning of the year arrangements were made whereby every teacher was to receive his mail at least once a week, and in this way it has been possible to communicate with those teachers located in the more remote barrios. Circular letters have been sent out from this office at intervals during the year. The object has been to aid the teachers in their work as much as possible, and when deemed advisable to offer them instructions which would unify the work in some particular subject throughout the district. Another valuable means of bringing about a higher degree of cooperation between the teachers and the superintendent has been the exchange of opinions indulged in on Saturdays, in the office of the latter. Every Saturday a certain amount of time has been set apart to receive teachers and talk with them about the work in their respective schools. In this way the teachers have been encouraged to come to the superintendent and suggest any change tending to better the schools of the district.

During the year appropriate exercises have been held in observance of the following holidays: Thanksgiving Day, Arbor Day, Christmas Day and New Year's Day combined, Washington's Birthday, Abolition Day, and Memorial Day. In addition to the above, exercises were held to celebrate the four hundred and tenth anniversary of the discovery of Porto Rico in all the schools. Those days which have received especial attention were Christmas, Memorial Day,

and Arbor Day, when the result of the election of an emblematic tree in this district gave the royal palm a majority of 469 votes over the mango.

The programme carried out in each school has been received in this office, thus enabling us to follow in a definite manner the general character of the exercises. The effect of these holidays and the accompanying exercises is good, as they arouse an interest in the school work on the part of at least the parents of the children who take part.

The teachers' institute held in Utuado March 25 and 26 under the direction of Miss Susan D. Huntington, principal of the Model School in Rio Piedras, proved to be a success in every way. It was the first thing of its kind ever held in Utuado, and the way it was received by the teachers was proof that similar meetings would not come amiss every year. The spirit displayed by the teachers in preparing for and in the discussion of the various topics is worthy of mention, and especially so when one considers the absolute lack of pedagogical literature at their disposition.

All but 5 of the teachers in the district were able to attend, although in some cases to do so meant considerable personal sacrifice. The value of one or two such institutes every year can not be overestimated. Not only does it offer an occasion for all the teachers of the district to become acquainted and to exchange ideas, but it also stimulates and arouses a certain esprit de corps, which is very desirable in any body working toward the same end.

In concluding this report, which has aimed at giving a general outline of the work done during the year, I wish to state that I consider it to have been a year of progress; that the standard of the body of Porto Rican teachers has been raised; that confidence in the commissioner of education and all others associated with him is greater than ever before; and that we face the future with everything pointing toward greater advance in the educational cause than ever before in the history of the island. Last of all I wish to thank the commissioner of education and his associates for the attention always given to any detail of the work brought to their notice.

Respectfully submitted.

J. W. SMITH,
Superintendent of Schools.

The COMMISSIONER OF EDUCATION,
San Juan, P. I.,

SCHOOL DISTRICT No. 16.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF DISTRICT SUPERINTENDENT.
Manati, P. R., May 31, 1904.

SIR: I have the honor to submit herewith the annual report for the district of Manati for the school year of 1903-4. This district remains the same as last year, comprising the municipalities of Maniti, Ciales, and Morovis, with the following schools:

	English.	Principal.	Graded.	Rural.
Manati	2	-----	10	12
Ciales.....	1	-----	5	11
Morovis		-----	2	7
Total	3	-----	17	30

Ciales failed to open two schools of her quota, one because no teacher could be found; the other because of lack of funds.

There were enrolled at the end of the second term 2,782 pupils, with a daily average attendance of 2,098. The average enrollment per school was 56.67. Average daily attendance was 42.85. The average enrollment of the graded schools was 57.16, with an average daily attendance of 42.53. The average enrollment of the rural schools was 54.21, with an average daily attendance of 42.99.

The teaching force is somewhat better than last year. I have not asked to have any teachers' certificates canceled, but have reported the teachers in a way that their certificates for the coming year may show the school board which teachers are undesirable.

Two very grave faults I find with many teachers are, unsystematic method of teaching and lack of firmness in school government. Nearly all have drilled themselves in the branches strictly confined to the text-books used, but many are very ignorant on all relative intelligence so necessary in teaching. This is shown always when the pupils are questioned upon topics not taken up by the text-books. I find it hard to get teachers to be careful throughout their work, and strict in regard to class work, attendance, and the order kept in their schools. Carelessness is a very general fault, though there are some as conscientious as could be desired.

At the beginning of the year there was quite a feeling of opposition manifested in some parts of the district, principally in Morovis, against our school system. I attribute this to the influence of a few disgruntled politicians, who, however, have been won over and are now among the most enthusiastic, and with the passing away of their opposition all difficulty disappeared.

It has been a more difficult task to keep up a good enrollment and attendance this year than last. I am at a loss to account for it. I am told that it is partly lack of interest on the part of the pupils and parents, and partly caused by extreme poverty; but I find rural schools in some of the poorer localities with an enrollment of 73, and an actual attendance of 72 on some days, and this in a district where many people are seemingly at the point of starvation. Two of my municipalities are strictly coffee producing, and the actual state of poverty of these people, I think, is little known to the public at large. It is the hardest part of my work to be compelled to see how they live and how they suffer from lack of strength to withstand the slightest demand upon their health.

The enrollment and attendance, as well as the general interest of pupils and parents in any school, depend very largely upon the teacher. If he is industrious, popular, and enthusiastic for the success of his school he is sure to have a full attendance in almost any section of Porto Rico. Far too many teachers care more for their salary than for the advancement of their pupils. I am sorry to report that I notice a great lack of real earnest effort on the part of the pupils to study. A few are industrious, but a great majority seem to expect knowledge to come to them if they but enter the schoolroom. Many pupils think they are doing the teacher a great favor if they attend school. Again, teachers are too lenient in compelling pupils to prepare their lessons. They fear they will displease the pupil or the pupil's parents if they keep him in after school hours. A little effort on the part of the teacher would soon have the parents anxious to have the children prepare their lessons and thus cooperate with the teacher in one of the most difficult parts of his work. There is too little acquaintance and mutual feeling between teacher and parent. Teachers should visit the parents of all their pupils whenever possible, and especially so when a confidential talk regarding their children is necessary. Afterwards a note sent to the parent referring to a pupil will be received in a friendly spirit, and the child will receive the attention the teacher desires. There is little use in forcing a pupil to attend school if the parents are not in hearty sympathy with the teacher and the school. A disparaging remark from the parent regarding the school or the teacher has great weight with the pupil, and he is continually alert for some pretext for disobedience.

We must have the parents on our side, and to gain this end there is nothing equal to school exhibitions on Friday afternoons or Saturday picnics, with essays, declamations, songs, enthusiastic speeches (which are always abundant on such occasions and always warmly cheered), and last, but not least, the "lechón asado" or roasted pig. Holiday exercises have done much in this way to bring the benefits of the school and the advancement of the pupils to public attention. A gathering of this sort carried out under my direction had a noticeable influence in interest shown in the school for many months afterwards.

Very little has been done during the year to improve the buildings and furniture, nor can we expect much improvement until the finances of this district are in a better condition. I do not think the department should allow any municipality to open another school before every school now open is provided with a good bookcase and a number of other things so badly needed.

The school boards of this district, without exception, have done all in their power to improve the schools, and I am glad in this, my fifth annual report, to be able to say for the first time that I have not had the slightest difficulty during

the entire year. There is now so much work connected with the duties of the school boards that it seems no more than proper that they be allowed a specific sum to pay the president and secretary for at least a part of the time spent in such work.

The waste of time, money, and energy is much greater than most of us would suppose at first thought. These losses creep in upon us in many ways. You will see that in this district there was during the second term a daily average absence of 684 pupils. Allowing 55 pupils to a school, we find that we were paying approximately 12 teachers more than actually needed. Again, the "penny-wise" policy of our school boards of paying a monthly rental for school buildings, which would in most cases pay for the building outright in twelve or eighteen months, is ruinous. A better plan would be to buy the house and pay for it, if necessary, in monthly installments.

Another great loss is found in the employment of poor teachers. I have one teacher in her first year's work who has advanced her pupils as much in six weeks as another teacher has done in six months, though the latter has taught fourteen years. I would respectfully submit that if the first teacher is only worth \$30 per month, how much money are we wasting on the latter?

The study and teaching of English is not satisfactory. A few schools are doing quite well. Many Porto Rican teachers think because they know the meaning of a few words that they are capable of teaching English. The construction and pronunciation, and especially the latter, is very bad indeed. We are too prone to accept a half-hearted attempt at pronunciation or translation as a complete understanding of the subject on the part of the pupil. English teachers in many cases are overworked, and some Porto Rican teachers persist in teaching (?) English during the English study period, thinking they are doing the pupils a great benefit, whereas they are undoing in many ways just what the English teacher has so painstakingly striven to accomplish.

Three teachers' conferences have been held in this district during the year, and much benefit has been derived from them. Teachers have taken great interest in them, and have prepared themselves on the various topics presented and have shown a more lively interest for advancement and less tendency to permit personal and political feelings to enter into these purely educational meetings than heretofore. Holidays have been consistently observed with suitable exercises bearing upon the day celebrated.

It is encouraging to hear on all sides the praise and to see the real pride the great majority of the people take in the progress of the schools. In former years many looked upon us with more or less suspicion, but now they see with pleasure our progress and they are with us. With their help and cordial co-operation in the future our advancement must be even more rapid.

Respectfully submitted.

EDGAR L. HILL.

Hon. SAMUEL M. LINDSAY,

Commissioner of Education, San Juan, P. R.

SCHOOL DISTRICT No. 17.

DEPARTMENT OF EDUCATION,
OFFICE OF DISTRICT SUPERINTENDENT,
Toa Alta, May 28, 1904.

SIR: I have the honor to submit my second annual report for the schools of this district, for the school year 1903-4.

We have had 10 rural schools less this year, due to the fact that the school boards had not enough money to furnish them with the material that I required them to furnish, as instructed by the department, as a prerequisite condition to opening schools. The number of graded schools has remained the same, due in part to the generosity of private citizens who contributed toward the house rent for the teachers and the rent of school buildings. Among these acknowledgment should be made to Mr. Francisco Romero, former secretary of the school board; Mr. José Carro, of Magueyes, Corozal, and Mr. José Francisco Nater, of Vega Baja.

I have had an average of more than 50 pupils enrolled in each graded school and of more than 40 in attendance, and in the rural schools the average enrollment has been more than 50, with more than 38 in daily attendance. In the

first grade of two graded schools, one at Vega Baja and the other at Corozal, I have had a double enrollment, the pupils being on half time. All my rural schools have organized first, second, and third grades, and two of them have a fourth grade also. Most of the pupils will be qualified to pass to the next grade next year, if they attend. It is a pity that so many pupils of the higher grades leave school at the end of each year. The ignorance and poverty of the parents are the principal causes of this evil. Many parents desire to take advantage of the incomplete education and undeveloped physical strength of their children to assist them in earning a livelihood. The health and cleanliness of the pupils have been looked after and great stress laid on elementary lessons every day in the subject of hygiene. Last term both the superintendent and the teachers took care to explain the general causes of anæmia and to instruct their pupils how to avoid it by care in securing pure water to drink and by seeing that their house and school was provided with a proper water-closet.

The schools, as last year, for the most part occupied private houses rented for this purpose. The agricultural school at Toa Alta has a good building erected by the department. This school has been painted, its fence repaired, and a gate added, at a cost of \$10, and the soil was plowed and prepared by the school board. Mr. Ramón Santini, the agricultural teacher, has worked well, and his enrollment and attendance has been very satisfactory. He has spent from his private funds at least \$10 in the improvement of his school garden, from which he has distributed much fruit among his pupils, and he is keeping a quantity of beans, tobacco, cotton, and corn for seed for the department. The graded school at Vega Baja was moved this year into a better building which has six rooms suitable for school purposes, only two of which are smaller than the regulation size. The graded schoolhouse at Toa Alta was repaired and some partitions removed, which gives us four large rooms suitable for school purposes. In a similar manner repairs were made in Vega Alta and Corozal, but the school building at Dorado is in such poor condition that without extensive repairs it will be unfit for use next year. There are some public buildings in the municipalities of Corozal, Vega Alta, and Dorado which could be used for school purposes if the money was available for necessary repairs. It is possible that the school boards may be able to negotiate loans for this purpose, but it would be better for the department to offer to these municipalities new school buildings on the basis of the department paying half the cost and the municipalities the other half. The boards have made applications for loans in order to be able to pay all of their outstanding bills. The graded schools have been supplied with filters, but the rural schools are in the same condition as last year, with the addition of slight repairs to roofs and water-closets. Many of the schools still need considerable equipment. Two of the teachers at Vega Baja, Mr. Herminio Perez and Miss Dolores García, have supplied their schoolrooms with some necessities at their own expense. The school holidays have been celebrated, and the members of the board have usually attended. In some of the rural schools I have had a lower attendance this year than last, due to the fact that the teachers lived some distance from the schools. Both of my school boards have secured 20 per cent allotment for school funds, and in addition the school tax, but even with this amount they are inadequately supplied with funds. The teachers of English have been much overworked with the various duties assigned to them during the year, but they have performed their work as models of good will and earnest teaching. We need a second English teacher in Vega Baja. The attendance of the Porto Rican teachers at the English classes has been good, although the work required of them was much too difficult, and they were not able to cover the entire amount with satisfactory results. They should be required to review the same ground next year.

The results of the new manual for the teaching of English, furnished by the department, have been excellent, and the lower grades are showing a more rapid advance in the art of English conversation. The pupils, and their parents as well, are more anxious to learn English than Spanish, and this is true of the rural schools, where the work of the teacher is frequently spoken of with praise in proportion as he has been able to teach English well. In some of my rural schools, like that of Mr. Juan C. Rodríguez Cepero, of Vega Baja, pupils are able to make use of the English they know in a conversational way.

All the schools have been furnished with suitable programmes of work, in accordance with the instructions from the department, and these have been

followed in every detail. The teachers who have had the opportunity of attending the Insular Normal School have shown considerable improvement.

Only one night school was open in my district this year, and it was closed a month later because of the lack of sufficient attendance.

All my graded teachers took an active part in the teachers' institute held at my headquarters on March 28 and 29. Only two were absent, and they on account of illness. Only two rural teachers and one English teacher were absent from the institute, which was a success in every respect. I would advise the holding of two institutes next year.

So far as I know, there is no private school in my district.

In reference to school supplies, those furnished by the department have been entirely satisfactory, both in quantity and kind, but those which the boards are required to furnish have not been supplied as freely, by reason of the lack of sufficient funds. Expendable supplies I have distributed from time to time to secure the greatest economy in use. Permanent supplies I had distributed to the schools before the beginning of the school year.

Progress in my district this year has been excellent in both reading and writing. In arithmetic the results have not been so satisfactory. The appearance of the schoolhouses has improved, and the effect of Arbor Day in beautifying the surroundings of the school buildings has been noticeable.

Almost all of my teachers desire to take advantage of the opportunity to make the trip to the States this summer, but lack of means will prevent many of them from doing so. I expect that 18 teachers of this district will go, although 5 of these have families dependent upon them.

I beg to thank all the members of the department for their kind advice and constant assistance.

Respectfully submitted.

ANDRES RODRÍGUEZ Y DIAZ,
Superintendent of Schools.

The COMMISSIONER OF EDUCATION,
San Juan, P. R.

SCHOOL DISTRICT No. 18.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF DISTRICT SUPERINTENDENT,
Bayamon, May 31, 1904.

SIR: I have the honor herewith to transmit my report on the public schools of this district for the school year ending June 24, 1904.

The work throughout the district has been greatly impeded by the extreme lack of furniture and other necessary equipment. In no school, either town or rural, except those built and equipped by the department of education, is there sufficient furniture to seat 50 pupils. A few rural schools have been absolutely without a piece of furniture except what has been loaned by the neighbors. It has been no unusual experience for me to find from 15 to 25 children seated on the floor. Only 9 schools have bookcases—a condition that has resulted in extravagant destruction of books, etc., by vermin.

The buildings occupied by the schools have in many cases been quite unfit for the purpose. Considerable improvement has been made in this matter during the year, but much still remains to be done. When I took charge of the district at the beginning of the school year I found 5 rural schools installed in buildings in which families lived. These have all been removed to buildings where they are by themselves. Five other schools have been removed to better buildings, and one building has been doubled in size and otherwise improved. In several of the barrios I have secured offers of gifts of land from property owners, and hope that the school board will, during the summer, be able to negotiate a loan and put up school buildings in those barrios.

The enrollment generally has not been all that could be desired. This has been due for the most part to the apathy and the indifference of the parents, though the smallness of some of the schoolrooms and the scantiness of their equipment has, in too many instances, made it impossible to enroll the full number authorized by law. Within the town limits of Bayamon, for instance, 5 schools have a total seating capacity of but 144.

At the beginning of the year the enrollment in the town schools of Toa Baja and the rural schools of Palo Seco was kept down by the unreasoning hostility to the so-called "Ley de Foete." This condition, however, soon passed

away, so that before the end of the second term parents were clamoring to enroll their children after the school capacity had been filled.

At the end of the first term I made out a detailed report showing the enrollment, the average daily attendance, and the per cent of average daily attendance in each school, and submitted it to the school board, which immediately hastened to assist me by sending to all the teachers and to the *comissarios de barrio* letters calling their attention to the necessity of improving both the enrollment and the attendance of their respective schools. As a result of these efforts the enrollment and the attendance for the second term showed a marked improvement.

The order of the superior board of health that no pupil should be allowed to attend school unless vaccinated, issued at the close of the second term, reduced notably the enrollment of the schools, in several cases more than twenty children being compelled to leave school. This was due to the fact that the superior board of health has made no provision for the vaccination of the children. The *Toa Baja* doctor was not supplied with vaccine points. In *Catano* time was lost for the same reason. *Naranjito* has no doctor, nor did any go there from *Bayamon*. The rural districts, of course, received no attention. I would recommend that the superior board of health be requested to make adequate arrangements for the fulfillment thereof before again issuing such an order.

In general, my experience during the school year now coming to a close has tended to confirm my belief formed two years ago that the enrollment and the attendance of the schools would be better if the school year should be changed to begin after the Christmas holidays. The fall months are the months of harvest, so that many parents refrain from enrolling their children in the schools, preferring to put them to work in the fields. Another gain would be that the Christmas holidays would form a part of the "long vacation," and not be time lost from the school year, as at present.

The teachers have, with few exceptions, done good work, especially in view of the universal discouraging lack of sufficient equipment and inadequate accommodations. They have shown particularly marked improvement in the increasing thoroughness with which they prepare themselves for the daily class-room work.

The progress of the pupils has been, as in the past, greatly impeded by the large proportion of late enrollments and the extreme irregularity in attendance. My efforts to avail myself of the compulsory-attendance section of the school laws met with little success, as the attorney-general rendered an opinion that that section was defective in that it provided no means for its enforcement. I am pleased to know that this defect was corrected at the recent extraordinary session of the legislature.

The natural, or conversational, method of teaching English has this year been adopted in the schools of the district. The result of the change from the text-book method, previously employed, has been extremely encouraging, whereas hitherto the pupils translated listlessly and unintelligently page after page of text, with little or no practice in employing the words in the expression of original thoughts, and neither pupil nor teacher gave any thought to the meaning of the passage, now all new words are introduced conversationally, and objectively so far as possible, before the lesson in the text-book is taken up.

The classes in English for the native teachers have been well attended, and marked progress has been made. Proof of the interest taken by them in this work was given on April 30, when not one failed to be present at the examination in English.

On March 28 and 29 teachers' conferences were held in *Bayamon*. The facts that they were held during the Easter vacation and that many of the teachers have their homes in *San Juan* caused the attendance to be lower than was to be desired. The papers presented by the teachers were generally good, and showed careful preparation. But few of the teachers, however, showed any signs of having studied the programme with the idea of taking part in the general discussions, and a few had evidently prepared themselves to make things disagreeable for those to whom they were unfriendly.

The practical results obtained at the agricultural school this year have left much to be desired. This has been due to adverse physical and material conditions rather than to lack of zeal on the part of the teacher. In fact, he has shown unusual interest in his work. At his own expense—the school board, through lack of funds, being unable to do anything—he has had the grounds leveled, a gate built to them, and the tool room repaired. The nearest water supply is, however, exactly one kilometer distant from the school, and the land is poor. As the major part of the field work done at the school must be the

cultivation of vegetables whose roots extend but a short distance below the surface an adequate and reliable water supply is indispensable to success. It seems to me that the work of the agricultural schools and the industrial schools is the most important that is being undertaken under the auspices of the department of education. I would, therefore, recommend that some plan be adopted for bringing the agricultural schools more directly under the supervision of the department of education as far as concerns their maintenance and equipment. Before the beginning of the next school year an artesian well should be sunk on the grounds of the school, or, if that is found to be impracticable, a cistern should be built. The value of fertilizers is little appreciated in Porto Rico. I would recommend, therefore, that a supply of fertilizers be included in the supplies that are furnished the school.

At the beginning of the third term I prepared blanks and requested the teachers and the comisarios de barrio to prepare censuses of the children of school age living within the jurisdictions of their schools. The comisarios de barrio rendered but little assistance. A few of the teachers hired horses and made careful canvasses of their barrios; a few others did little but prepare a list of the children enrolled in their schools. The majority did all that could be expected of them when it is remembered that the work was entirely voluntary and unremunerated. At best, therefore, the census must be regarded as incomplete, representing in most cases the children that live within convenient distance of the schools. In a way, such a census will be of more practical value than would be a complete one. For, not being loaded with the names of children that live in parts of the barrio whence they can not attend the present school, and where no schools can be established on account of lack of funds, it gives the actual number whose enrollment in the school can be expected and required. The results of this census appear in the following table:

	Urban.		Rural.		Total.
	Enrolled.	Unenrolled.	Enrolled.	Unenrolled.	
Bayamon	505	512	907	a 1,260	a 3,184
Catano	323	327	.....	.....	650
Naranjito	123	54	409	a 928	a 1,514
Toa Baja	91	56	286	419	852
Total	1,042	949	1,602	2,607	6,200

^aOne barrio, in which there is no school, lacking.

In conclusion, I wish to express my appreciation of the unfailing cooperation that the school board has given me throughout the year. Not once have I gone to it with a proposition looking to the betterment of the schools but it has eagerly and heartily lent me its aid. Above and beyond all, I would cordially thank you and the assistant commissioner and your corps of division chiefs for the helpful and sympathetic assistance and advice that have ever been accorded me.

Respectfully submitted.

ROGER L. CONANT,
Superintendent of Schools.

The COMMISSIONER OF EDUCATION, *San Juan, P. R.*

EXHIBIT III.

REPORTS ON SPECIAL SCHOOLS AND ON SPECIAL WORK.

REPORT OF SUPERVISING PRINCIPAL OF INDUSTRIAL SCHOOLS.

DEPARTMENT OF EDUCATION OF PORTO RICO, INDUSTRIAL SCHOOLS.

June 1, 1904.

SIR: In presenting this my first annual report of the industrial schools of Porto Rico it gives me great pleasure to make the following statement:

We have now in fine working order four industrial schools, situated in the following cities: San Juan, Arecibo, Mayaguez, and Ponce. These schools are

well equipped with modern tools of the best make for hand work in wood. Each school has three foot-power sewing machines for the dressmaking department; the kitchens are supplied with a good assortment of utensils for work in that line, and each school is supplied with the regular Porto Rican range, as well as an American oil stove, ovens, and broilers, so that the girls receive instruction in cooking in both methods.

The introduction of dressmaking has been received with favor, and some of the girls are wearing to school every day dresses made by themselves, under the direction of this department. The work in plain sewing has been very satisfactory, and the product is something that any school or pupil might well be proud of.

The interest shown by parents and pupils in regard to the work and attendance has been very gratifying. At all of the schools we have been obliged to turn away students, largely because of lack of room to carry on the work. In three of the schools (Mayaguez, Ponce, and San Juan) it is possible to increase our shop or seating capacity by additions to the present buildings. But little can be done at Arecibo along that line.

It seems best, from the nature and character of the problem of industrial work here in Porto Rico for the first two years, to make the work along the lines of the best manual-training schools in the United States; after that to specialize for the more distinct lines of trade, with the single exception of the printing classes. They have been excused from a part of the industrial work, in order that they might spend a full half day in the printing department. After the second year, when we begin to specialize, it will be wise to follow out this plan in other departments.

One of the problems that we are combatting is the question, "The dignity of labor." It of course will be of slow growth, but I feel that it is only a question of time when our pupils will feel as the students do in the United States, that they have an advantage over other fellows who have not a like training.

At San Juan the classes in domestic science have been enlarged and are at work more days per week than last year. The work is of a higher and more practical order, and includes dressmaking and fitting, as well as the fancy work that most of the girls are experts in.

A peculiar and rather interesting fact has been brought to my attention these past few months, i. e., that at Arecibo and Ponce many of the girls are quite ignorant of the way to make any of the drawn work or embroidery. Especially is this so at Arecibo. It is interesting to me in that it proves that we have a virgin field to work in, and I feel that we can find a market for all that we can produce.

There has been a large demand for the various schools to take orders for work in wood, as well as drawn work, this past year, and as soon as the majority of the students are capable I am sure that will be a help to our problem.

We have, I feel, kept up to the regular school work of the grades we represent, as well as giving much valuable training along the lines of several industries. I would urge the transfer of the regular sixth, seventh, and eighth grades here in San Juan to the industrial school for two important reasons: First, to give more schoolroom space, that more lower grades may be put in; I understand that the classes are not very large in those upper grades; and, second, that the enrollment of the industrial school may be raised, thereby reducing the cost per capita. We can take care of all that are qualified without any additional teachers, and I feel that the majority of pupils would prefer industrial education.

At Arecibo we opened the school at the beginning of the second term and have had an enrollment of 144. Of this number 33 have been dropped for various causes—lack of room, inability to do the work, etc. Many of the students have not attended public schools for years, and it was difficult to bring them up to the standard.

I beg to acknowledge the many kindnesses extended to this school by Mr. E. Landrón, superintendent of the Arecibo district, in transferring pupils, loaning supplies, etc., and to the acting alcalde in arranging the public opening of the school. What seemed to be doubtful at first became one of the most enthusiastic at once. Doubts and criticisms have given way to praise and interest. Already we are outgrowing the present building, largely because so much space is wasted in double patios. These might be inclosed and give three more rooms. One fact speaks well for Arecibo, i. e., that nearly twenty pupils have come from surrounding towns to attend this school. In academic work we have kept up the standard set for the other schools, with the addition of our industrial work, and expect some of the pupils of each school, i. e., eighth grade, will come up for

examination for rural teachers. Considering the fact that this school has had only two terms, I feel that the results are quiet pleasing. We have thus far only three industries at Arecibo—woodwork for boys; cooking, plain sewing, drawn-work, etc., for girls. Next year we shall have forging and leather work in addition for the boys, and typewriting, stenography, basketry, and possibly pottery for both boys and girls.

At Ponce more elaborate notice was taken of the dedication of the school. February 22 was the day selected, and the visit of Governor Hunt, Doctor Lindsay, the commissioner of education, and several other gentlemen, together with parades of cavalry, firemen, entertainments in the theater, made the whole occasion a day to be long remembered. The addresses at the dedication of the building were on the value of industrial education, and the need of hand as well as mind training was dwelt upon and its value shown. These speeches were listened to by a large gathering with much interest. In this case we are also indebted to the district superintendent, Mr. Lutz, the local school board, and citizens for much of the success of the day.

The work carried on for these two terms is practically the same as that of the other schools. As long as local conditions and circumstances vary, we must vary our work a little to best suit the environment. It is the aim of all the schools to give as much of the work as possible in English. As the work advances more and more attention and time will be devoted to the industrial side of the problem and only the more vital studies taken up.

I feel that this next year there will be a large demand for night schools in all of the schools, and this will be met by giving classes in English, mechanical drawing, mathematics, stenography, and typewriting.

At Ponce one thing that deserves special mention is the making, erecting, and and painting of the fence at one end of the school property. Each boy has had his part to do, and all have done it enthusiastically. It has added greatly to that end of the property, and all in all is a piece of work that any boys' school or city may feel proud of. I have great hopes of the after effects of this work on the students of to-day, and feel that practical work that has a direct bearing on the school or home life of the child will count for more than a pure theoretical training.

A more complete study of native methods of making "dulces," with a view to improving them, will be one of the things to be taken up next year and a market found for them. We have made quite a variety of jellies, jams, marmalades, etc., at the schools this year, and they have proved very satisfactory.

A leather department has been in operation at San Juan this year, and has taught us many lessons besides the making of useful articles in leather, one important lesson being the fact that it is impossible to get the finer leather here for small articles, for which there will be a ready sale. These leathers will have to be brought from the States this summer in quantities large enough to supply all the schools. Our woodwork in all the schools has progressed from the making of set models of last year to the more pretentious bits of furniture and some original models by the boys. Also a great deal of practical work has been done at all the schools, for example, the fence made at Ponce, mentioned elsewhere in this report, the moving of partitions, making of platforms, and the stitching horses for the leather department.

With the introduction of forging next year very much more can be accomplished by the combination of wood and iron.

At Mayaguez hat weaving has been a part of the regular work, and next year it would be wise to put it in all schools for a short term under instruction, my idea being thus, to employ a teacher at one school for two months and then transfer him to another. In that way all the schools could get the benefit of expert training for a time, and then the work could be carried on under the direction of one of the teachers.

The same thing could be done with pottery, which I am anxious to introduce. The island has good clays, and at the present time imports a good deal of its supply of earthenware articles, which could be made here.

The matriculation at Ponce has been 110, girls 43, and boys 67. The building is one of the finest on the island, the grounds are ample and will allow room for more shops, which must come soon.

The matriculation at Mayaguez has been 151, boys 64, and girls 87, and like the other schools we are being crowded to the walls. It is, however, possible to extend our work next year by covering the patio.

The matriculation of San Juan has been 133, boys 69, and girls 64. The aver-

age age of the San Juan school is somewhat greater than the other schools, it being 16.31. With the departure of our highest classes this year, more of the regular grade pupils will come to us, thereby reducing the average to about the same as the other schools, which is 14.50.

The work of the teachers has been very conscientious and painstaking. Many of them are quite new to this work, and another year they will see more largely the value of correlation, so that the studies and work as far as possible may be dovetailed together and all be strengthened by a union of efforts.

Much sickness has prevailed in Mayaguez, and that has handicapped the efforts of the teachers to a large degree.

I would urge the employment of specially trained teachers in all departments, so that the children may have the best possible training to fit them for the years to come. I trust that this next year may see the opening of two or three schools at other points in the island, for I think that some of the other large towns are quite ready for our line of work. The aim has been and will be to "make haste slowly" and to add new industries only as fast as the situation demands it and the pupils are ready to receive it.

I feel that we can lead our pupils to see the value, both educational and financial, of the work we are now laying the foundation of, but it is much harder to force them to take up this work as a trade.

The success of the year's work rests with the faithful teachers who have labored hard and who have in many cases placed no limit on the hours spent with their pupils.

Respectfully submitted.

FRANK H. BALL,
Supervising Principal of Industrial Schools.

REPORT OF HIGH AND GRADED SCHOOLS, SAN JUAN AND PONCE.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF PRINCIPAL OF SAN JUAN HIGH AND GRADED SCHOOL,
San Juan, May 24, 1904.

SIR: I have the honor to submit the following report on the San Juan High and Graded School for the year 1903-4, to and including May 15.

Matriculation began on Wednesday prior to September 28, on which date the regular school work was commenced. The following table shows the enrollment and movement of the pupils:

Grade.	Enrollment.	Average age in years.	Average daily membership.	Average per cent of daily attendance.	Transfers to other grades.	Withdrawals.	Reasons for withdrawal.					
							Ill health.	Misconduct and irregular attendance.	Dissatisfied.	Change of residence.	To work.	Death.
1	60	7.96	40	93.0	3	17	1	3	2	8	3	---
2	55	9.69	39	95.5	3	12	1	3	2	5	1	---
3	44	11.06	28	94.8	6	10	1	---	4	4	1	---
4	46	12.07	31	95.4	4	13	4	1	3	1	4	---
5	35	13.08	25	96.3	4	6	---	---	2	4	---	---
6	28	13.37	19	95.2	1	4	---	---	2	1	1	---
7	25	13.88	21	96.5	---	3	1	---	---	2	---	---
8	33	15.00	28	96.5	---	5	---	---	1	3	1	---
9	22	15.40	11	96.7	2	7	1	---	3	2	1	---
10	26	16.20	23	97.9	---	5	2	---	1	1	1	---
11	8	15.90	6	89.7	---	3	---	---	---	1	1	1
12	5	17.80	5	99.1	---	---	---	---	---	---	---	---
Total	387	13.37	276	95.7	23	85	11	7	20	32	14	1

When pupils have changed to some other public or private school they have been classed as "Dissatisfied." Any pupil attending any other public school in this city, desiring to enter this school, has invariably been required to present

written permission from the principal of the school which he wished to leave. I regret to say that some of the other schools do not have this requirement, and in several instances the first knowledge we have had of a pupil's transfer has been received through some other pupil. I think a more definite understanding should be had with regard to this, and that a pupil should not be allowed to change to some other school because of some childish dislike or because of some petty grievance. Whenever it has seemed for the best interests of any pupil, he has been encouraged to change to the industrial school or to the normal. One death occurred among the students in the accidental drowning of José Barbosa.

The spirit this year between the pupils and teachers and teachers and parents has been very friendly. With only two exceptions, parents have shown their desire to cooperate with teachers. Once, when an American father was notified that the attendance of his son was very irregular and was asked to lend his aid toward making it better, he showed his displeasure and took the boy from school. The other instance occurred when a teacher, acting upon the advice of a parent, punished a child, which punishment was resented by that parent and the girl withdrawn against her wishes and placed in a private school.

The work has moved along fairly well and has approached that outlined in the course of study. We have found difficulty in doing the prescribed work in nature study. This has been due largely to the limited knowledge of Porto Rican fauna and flora and to the lack of suitable text-books or handbooks for the use of teachers. It seems to me that considerable useless teaching is done in the grades. For example, much time is devoted to denominate numbers, reductions, and tables that probably not a single pupil will ever have occasion to use, and if he does, will have sufficient understanding to know where to look for what he needs. The same is true of unimportant details in history and geography. I think the course of study could well be modified so that the eighth grade could begin algebra, and probably Latin, or devote more time to Spanish. One reason why some teachers feel that they are hurried and crowded is because they try to exhaust a subject before the pupil has sufficient mental development. I venture to suggest that a more complete and definite course of study would be of great advantage.

To the detriment of the pupils, we have done nothing in sloyd or manual training and very little in calisthenics. The former was neglected because of want of space and a teacher; the latter, largely for similar reasons, and also because very slight exertion produces perspiration, and if pupils are allowed to resume their work without a change of clothing or a bath, no beneficial effects are obtained. The school has plainly felt the lack of a music teacher and regular instruction in music. Marked improvement is noticeable in drawing.

The course of study for the high school as modified at the beginning of the year has worked very well. Our laboratory is too inadequate to permit the required work in science to be done as it should be, and if the increased amount required in botany and physiography is to be done successfully, the equipment of the laboratory must be improved. The scarcity of reference books is also felt, especially in work in history. This want is not satisfactorily met by giving pupils permission to use the other libraries in the city where the surroundings are not conducive to study and from which books may be temporarily withdrawn by others, so that if sent to work there the student may not find the book at his disposal.

Up to this time the high school has consisted of two distinct schools, each having its separate room and its own identity. This division is no longer necessary and should be discontinued, as it tends to diminish the distinction that should exist between classes of different years, creates a need for more teachers, tends to give undue prominence to certain pupils, and minimizes the necessary high school spirit.

At the beginning of the year, the school, with the exception of the four lowest grades, was divided into four sections for the purpose of rhetorical exercises and literary work. Each section, in its turn, has prepared a programme for the last hour every Friday afternoon. In addition to this, each pupil in the high school has been expected to appear before the entire school during opening exercises in the morning not less than twice during the year. This has been made regular school work, and no pupil has been excused from it, although in several instances parents have requested that their children be relieved from taking part. Special exercises have been held on Arbor Day, Emancipation Day, and are now in preparation for Memorial Day and commencement. On December 18 an entertainment was given at the theater, at which \$266.61 was

realized. The expenses were small because of the liberal aid received from the honorable governor of Porto Rico, the honorable commissioner of education of Porto Rico, the San Juan Electric Light Company, and other friends of the school. From the proceeds of that entertainment 272 books were purchased, making in all 754 volumes in the school library, exclusive of reports, pamphlets, periodicals, and magazines.

José Capó, Julio Castro, Edward McLean, Augusto Palmer, and Rafael Vidal constitute the first class of this school to be graduated. Some of the work these young men have done this year would compare very favorably with that done in any similar school. Mr. Palmer has been a most faithful and able assistant in the library. For obvious reasons each one of them expects to be obliged to continue his studies away from Porto Rico.

I feel that some changes might be made that would be of very great benefit. One is the transferring of our lowest grades to the Emerson School in exchange for the highest grades of that school. Another is the introduction of subjects into the high school course that would attract more pupils. We have very few young women in the higher grades, largely because they do not see what benefit will be derived from a high school education, so far as making a living is concerned. A high school graduate who has never taught school is on the same footing as a pupil of the eighth grade when it comes to being licensed to teach, and those who expect to follow that profession ought to attend the normal school. The teaching of stenography and typewriting to pupils who have done no work beyond the eighth grade tends to put upon the market unskilled labor and a premium on a low grade of scholarship. It seems to me that if those subjects could be transferred to and be made a part of the high school course our graduates might hope to get into departmental or other clerical work and would recognize the value of their study and effort.

In conclusion, I wish to acknowledge the assistance and advice that the members of the department of education and every one of the teachers have rendered, to which is due the present satisfactory condition of this school.

Very respectfully, yours,

THERON POTTS,

Principal of San Juan High and Graded School.

THE COMMISSIONER OF EDUCATION,

San Juan, P. R.

PONCE, P. R., June 21, 1904.

DEAR SIR: I have the honor to submit my second annual report on the high and graded school of Ponce for the school year 1903-4.

The school opened on October 1 with a full attendance in spite of the anti-public-school demonstration of the previous day. By the end of the first week there were over 250 children on the waiting list, and since that time we have had over a hundred additional applications for admission, making a total for the year of over 350 applications for admission above the number we could accommodate, the total enrollment for the year in all grades being 387.

As all of the work of the school is conducted in English, the great demand for places would seem to indicate that the people decidedly approve of this form of instruction. In the great majority of cases parents state that they desire to place their children in the high and graded school especially for that reason.

Another very encouraging feature of the work is the fact that the school is becoming more and more thoroughly democratic in character; that its patronage is not limited to any one class in the community. While we have among our pupils quite a large representation from among the best of the laboring class, at the same time almost all the best families of the city are represented in the school by one or more children. These children all mingle freely in their work and play without any class distinctions whatever. A very commendable desire to help those not so fortunately situated as themselves has been shown by a number of the children in the organization of the Little Helpers Society, formed with the object of raising funds to purchase shoes and other clothing for children whose parents were too poor to do so and who otherwise could not remain in school. At one time during the year the society had in its treasury over \$100, and has helped quite a number of children in various ways.

There has been little change in the routine work of the school during the past year, except that it has been more thoroughly systematized in every way, so as

to make the supervision of the work of teachers and pupils much more thorough. The use of the appended forms has contributed very much to this result.

The fact that we have had to use two buildings, half a mile apart, to accommodate all the grades has rendered the work of supervision doubly difficult. While the results obtained have been, on the whole, quite satisfactory, the work has been done under the disadvantage of being compelled to use rooms which in many ways are unsuitable for school purposes and which are almost without exception too small to accommodate properly the number of pupils compelled to use them. Thus a great many of the grades were badly crowded during the entire year. Great credit is due the teachers for the excellent work they have done and for the interest and enthusiasm they have, almost without exception, shown in it. In the special branches also, music, drawing, and Spanish, a decided advance over the work of former years is to be noted.

During the first term physical culture was introduced in all the grades, under the direction of Miss Crowley. A daily drill in marching and in various movements was given them. By the end of the first term the results were quite noticeable, both in the improved discipline and in the general bearing of the pupils. Use was also made of the same teacher in individual work with backward children, with the idea of determining the value of a special teacher for such work, but her withdrawal at the end of three months prevented the continuance of the experiment.

In the high school proper we have had this year two classes, first and second year work, having, respectively, 16 and 12 members. At the present time the number of candidates for admission to the class which will enter next year exceeds the total number at present enrolled.

The work in all branches has been carried on in English, as there was practically no demand for a course conducted in Spanish, nor is there any probability that there will be any need for such a course in the future, as each class that enters is showing increased proficiency in the use of English.

Following is the work actually accomplished during the year by the high school classes:

First year.—English: Composition, grammar, and syntax. Mother Tongue No. 2. College requirements, Macauley's Life of Addison. Mathematics: Arithmetic, practical problems, college entrance examinations. A number of text-books used. Algebra, through equations of two or more unknown quantities. Text-books used, Wells's Essentials of Algebra; Fischer and Schwat's Rudiments. Latin: Thorough drill in the essentials of grammar and construction. Books used, MacMillan's Shorter Course; Smiley and Storke's Beginners' Latin Book. Science: Physical Geography. Text used, Tarr's First Book of Physical Geography. Spanish: Syntax, rhetoric, composition. History: Roman. Barnes's History of Rome. Music. Drawing.

Second year.—English: Review of History of English Literature. College entrance requirements, Macbeth, Sir Roger de Coverly Papers. Mathematics: Algebra, completed as far as logarithms. Books used, Wells's Essentials, Wentworth's New School Algebra. Geometry, first book completed and fourteen propositions in second book, Wentworth's Plane and Solid Geometry. Latin: Review of grammar; Caesar, first four books. History: Roman, completed; History of Greece. Barnes's texts used. Science: Physics, Wentworth and Hill. Spanish: Syntax, rhetoric, and composition. Music. Drawing.

There seems to be a desire that the course should be so arranged that those who are preparing to enter college may devote their time strictly to the requirements for entrance examinations. Then a broader course could be given those who do not expect to take up higher work. A commercial course, covering the last two years of the high school work, would also be very popular.

The special celebrations in which the school has taken part or observed by itself during the year have been Arbor Day, Memorial Day, and Flag Day. Attention was also given in the various grades to the observance, by special work or in other ways, of Thanksgiving Day, Christmas and Three Kings' Day, and Washington's Birthday.

One very important change in the work of the school which I feel is especially urgent is the introduction of a definite system of midyear promotions. Considering the vast difference in mental capacity which we had among children it seems unreasonable to compel the quick, intelligent child to spend the same number of years in covering a given amount of work as the duller one. Under the present system if a child is promoted during the school year it is bound to miss more or less of the work which the grade to which it has been promoted has covered. To remedy this I would suggest the adoption of the fol-

lowing plan, which I believe has been adopted in the great majority of our larger cities: Let the year's work for each grade be divided into two equal parts. The first part will then be covered in the first four months of the school year, the fifth month being devoted to a thorough review of the work of the preceding four. At the end of the fourth month all midyear promotions must be made. Thus, if a child has made sufficient progress and is advanced to a higher grade at that time, it will have the advantage of the month's review, and so will not lose any of the course of that grade. The possibility of promotion at the end of the fourth month would be a great incentive to the children to harder work, would by no means affect the thoroughness of their work, and would entirely prevent the great inequalities in grading which we always find by the end of the year.

In the lower grades we felt very much the need of some form of manual work. The transition from the kindergarten to regular grade work has hitherto been too abrupt. I would recommend the introduction of paper cutting and raffia work in the first and second grades, and a modified form of sloyd work, or more properly knife work, in the higher grades. These forms of work could be introduced at a very small cost and would add greatly to the interest in the work, and so to its efficiency in these grades, in addition to the special educative value which these forms of work have.

I have taken the liberty of making these suggestions, feeling confident that their adoption would add greatly to the efficiency of the work of the school.

Respectfully submitted.

H. O. WELLS, *Principal.*

The COMMISSIONER OF EDUCATION,
San Juan, P. R.

TEACHERS OF PONCE HIGH AND GRADED SCHOOL, 1903-1904.

Horace O. Wells, principal, Latin and Greek; Lillian Pike, Greek and Roman History; Grace H. Wells, Mathematics; Charles H. Terry, Latin, English, Science; Anna E. Nordell, Drawing; Matilde Nadal, Music; Miguel Pou, Spanish; Lora H. Crowley, Physical Culture and Individual Work; Lillian Pike, eighth grade; Agnes A. Hall, seventh grade; Elizabeth Underwood, sixth grade; Myrtle M. Niece, fifth grade; Grace H. Wells, fourth grade; Marion L. Flickinger, third grade; F. Edith Allen, second grade; Elinore B. Kervey, first grade. Grades 1 to 7, Méndez Vigo street building; eighth grade and high school, Salud street building.

PONCE PUBLIC SCHOOLS.

1903-1904.

1. Name of pupil, _____
2. Age, _____ Sex, _____ Color, _____
3. Name of person with whom pupil lives, _____
4. Relation of this person to pupil, _____
5. Occupation, _____
6. Residence (street), _____ No. _____
7. In what grade of what school last year? _____
8. Grade this year, _____

	First term.	Second term.	Third term.
Progress.....			
Conduct.....			
Attendance.....			
Deficient in what?.....			
Cause.....		Health.	
Grade next year.....			

Report of work of _____ grade, Ponce High and Graded School. _____
_____, teacher for month of _____ (Indicate topics studied and pages of text-
books used.)

Language, _____ Mathematics, _____ History, _____ Geography, _____
Nature study, _____ Additional notes, _____

REPORT OF SUPERVISOR OF DRAWING.

DEPARTMENT OF EDUCATION OF PORTO RICO,

San Juan, May 31, 1904.

SIR: I submit with pleasure my first annual report as supervisor of drawing for Porto Rico.

For several years special drawing teachers have been employed in the public schools of San Juan, Ponce, and Mayaguez. Each teacher has followed her own plan and arranged her schedule to suit existing conditions.

At the beginning of the present school year, in order to secure greater uniformity in the drawing work of the three cities, we decided to introduce Thompson's Shorter Course in Drawing, and to use it as a basis for a system which could in due time be adapted for use in all the schools of the island. After a fair trial and careful consideration we find that, although this course of study is simple and well planned and perhaps well suited to the use of many schools in the States, to be made of value in Porto Rican schools it would need so many changes that it would really lose its identity.

The same thing could probably be said of any of the standard courses of study in drawing. They are necessary as aids, but not as infallible guides.

In San Juan, Ponce, and Mayaguez, where special attention has been given to this subject, we find each year a very noticeable improvement in quality of work. The love of drawing is universal among Porto Rican children. No other school exercise attracts them more strongly. Again and again we are asked by pupils if they may stay after school to finish some piece of work or if they may complete it at home.

In schools where the regular teacher is interested in this branch and can devote even a small amount of time to it we find that the average of excellence is above that in many schools of the same grade in the North.

With the idea of gathering information in regard to best methods of planning work for rural schools I have visited a number of such schools. In one school visited the conditions are very unfavorable to the development of the subject. The teacher and pupils have never seen really good work, and the children come from homes where nothing exists which can stimulate a love for order and fitness. The results in these schools are not good, but the quality of work is probably no better and no worse than in schools similarly situated in many other countries. These schools are almost entirely cut off from outside influence.

The pupils make copies of pictures in text-books or of cheap, **highly colored** card pictures. They often make crude drawings which resemble those made by other children and which remind one of pictures made by the Indians and Egyptians.

When children draw without any help outside of themselves their work seldom shows improvement. A boy of 16 is very likely to use the same simple drawings that he learned to make at 6. The average child does not learn to draw without receiving instruction any more readily than he learns to read and spell when left entirely to his own devices.

In addition to the paper and pencils found in all the schools, we often notice that the children have colored pencils which they have bought or which the teacher has procured for them. These materials are all which we find in most rural schools, with the exception of slates and a limited amount of blackboard space. With all these drawbacks these pupils respond with delightful enthusiasm to any suggestions given them. In the lessons given the children detected the difference between good and poor drawings made by me, and in several cases gave very intelligent criticisms of poor work, telling why it was bad. A very small amount of good teaching in this subject will bring surprisingly large returns, for the reason that these children desire with all their hearts to know how to draw well. Occasionally we find in the rural schools a drawing which shows that the maker has observed for himself and has tried to record his impressions.

In one school we could not help noticing that every drawing which represented the human figure bore a marked resemblance to the teacher of the room. These pictures were made with no thought of ridicule. The children evidently tried to express what seemed to them the embodiment of excellence in physical as well as mental attributes.

In rural schools, as in all others, we find that this subject progresses and proves itself of real value exactly in proportion to the capacity of the teacher.

Wherever the teacher is interested in drawing and possesses some knowledge and skill she finds a hundred uses for it in the daily work. In such a school one usually finds life and enthusiasm which others often fail to show. The teacher does not say that she has no time for drawing, but that her use of it saves much time each day. Her work is made less wearisome to herself as well as to those under her care, and the simple drawings made by herself and pupils impress in their minds vivid pictures which are remembered long after mere words are forgotten. The dull pupil by the use of drawing may be led to feel that history, geography, arithmetic, etc., are real, live subjects and not made up of dull, lifeless words which bring no joy because they convey no image to his mind.

In January drawing work from all parts of the island were received at the department of education. Several thousand were examined and 250 selected and sent to the St. Louis Exposition as a part of the educational exhibit of Porto Rico. A large number of drawings sent in from schools outside of the large cities are copied from pictures of various kinds.

Many of them are wonderfully good as copies, but of small value when considered as part of an educational exhibit. With the exception of some maps, which are beautifully drawn, and some pictures of historic ornament, we excluded copied drawings as far as we were able to determine whether they were copied or not. The preference was given to drawings which were evidently made from nature or from objects and which were especially characteristic of the country. Could the time and effort employed in making copies of pictures have been spent in simpler elementary work and in drawing directly from nature our drawing exhibit would have been much more valuable as representing the work of the island. As it is our special drawing teachers have no reason to feel ashamed of the collection of drawings sent to St. Louis. For the most part these drawings represent the best effort of their pupils for the first half of the present school year.

Since reading a paper giving suggestions as to the teaching of drawing at the convention of district superintendents in January, I have received many questions from superintendents. Almost every superintendent manifests great interest in the subject and recognizes its importance. Several have planned courses of study in drawing for the use of their schools and report results from time to time. Nearly all unite in saying that some definite set of lessons and instructions, made out for the use of teachers, is a necessity under present conditions. I wish to thank Mr. Ayres, of the Caguas district; Mr. Conant, of the Bayamon district; Mr. Clopper, of the San Juan district, and many other superintendents for their helpful suggestions and the interest which they have manifested in this department of school supervision.

I call the attention of all teachers and superintendents to the work which is being done in the Rio Piedras Practice School. The conditions under which pupils work in the school are more conducive to good results than those found in most schools of the island. We have, however, used simpler materials in the drawing work and preferably those derived from the products of the country. For example, pieces of charcoal selected from common burning charcoal have been found to work admirably as a medium in many drawing lessons.

A doll house, made of a common wooden packing box and being furnished by the children of the first and second grades, has the floor of its sala covered with matting woven of strips of palm by the children in the room. Portieres are made of strings of beads, which are the seeds of plants growing in all parts of the island.

In the Japanese room of the doll house paper screens are made by the children and decorated with colored pencil drawings from sprays of bamboo brought in from trees growing near the school.

In the third and fourth grades some of the girls, who already possess considerable skill in needlework, have been studying and originating some good designs in cross-stitch embroidery and applying the same to collars, table covers, etc. These girls from home training understand the mechanical part of embroidery and are in the best possible condition for receiving suggestions in regard to harmonious coloring and fitness of design to the purpose for which it is intended.

In the same grade the pupils are studying the decoration of fans woven of strips of palms. They have decided that if a fan which is well constructed and badly decorated will bring 5 cents in the market, and one of the same kind with good decoration will bring 10, 15, or 25 cents, it is worth while to give a little time and thought to decoration.

In the same way they will study the decoration of gourds and other products, which are often grown, decorated, and brought to market by the same person. Tourists buy these souvenirs of the country in quantities. There is a good reason for doubting the possibility of increasing the market value of these home products if we can, through the school children, arouse a general recognition of the importance of good construction and tasteful decoration.

In the Rio Piedras Practice School comparatively little time has been given to drawing, owing to pressure of other work. The encouraging results are due largely to the enthusiasm and helpfulness of the principal, Miss Huntington, and to the grade teachers, Miss Mowry, Miss Stone, Miss Hoffman, and Miss Campbell.

In the graded schools, where special drawing teachers are employed, the special teacher needs the support, sympathy, and assistance of the regular teacher, and the regular teacher needs no less as great an amount of knowledge and skill in this branch as she can possibly acquire. She needs the knowledge not entirely for the good of the special teacher, but for her own good and for the benefit of the school.

No day passes in which the teacher who draws can not do better work than the one who does not. I am referring now to the teacher who can make simple, quick drawings and diagrams on the board or on paper for the illustration of any point which needs it, not to the one who spends several hours in making a calendar with elaborate decorations which the children admire for a few days and then ignore entirely.

Without the support of the regular room teacher any special teacher will tell you that her best efforts produce but small results. In San Juan the time and strength of the special teacher of drawing are divided among 48 schools and 1,700 children. In Ponce there is nearly as much ground to be covered, and in Mayaguez the drawing teacher has charge of both music and drawing in the public schools.

If our work is to grow and become productive of the best results the special teachers must have more time for planning and need to devote much more attention to the regular teachers, who often need assistance in acquiring knowledge of the subject and in best methods of imparting this knowledge.

Miss Miriam Wells, Miss Anna Nordell, and Miss Gertrude Spoor, the special drawing teachers in San Juan, Ponce, and Mayaguez, respectively, have, in addition to the work of teaching and directing the drawing work in these cities, given me many suggestions and much valuable assistance in the general work of supervision.

Miss Nordell is at present voluntarily conducting a series of lessons in rural schools near Ponce, for the purpose of testing the practical value of ideas which she holds in regard to drawing in ungraded schools.

Miss Wells and Miss Spoor are to spend the greater part of their summer vacation studying the subject of art instruction in the public schools under some of the foremost authorities in that line of work.

With many thanks to the department of education for consideration and helpful suggestions.

Respectfully submitted.

CHARLOTTE S. DORMAN.

THE COMMISSIONER OF EDUCATION,
San Juan, P. R.

EXHIBIT IV.

REPORTS OF THE SECRETARY-TREASURER OF THE UNIVERSITY OF PORTO RICO; PRINCIPAL OF THE NORMAL DEPARTMENT; PRINCIPAL OF THE PRACTICE SCHOOL; DIRECTOR OF AGRICULTURE.

REPORT OF D. N. HANDY, TREASURER.

UNIVERSITY OF PORTO RICO,
Rio Piedras, P. R., June 1, 1904.

SIR: I have the honor to submit the following report on the work of the secretary and treasurer of the University of Porto Rico from July 1, 1903, to June 1, 1904.

For the first part of this period the office was temporarily held by Mr. James H. A. Smith. On November 1, 1903, your present secretary, having duly qualified, was installed.

During the year the routine work of the office—recording and keeping the minutes of the trustees, receiving and disbursing books and supplies, caring for the property, and receiving and paying out, on approved bills, the moneys of the institution—has been duly attended to.

The receipts and disbursements of moneys, which will be more minutely described in the treasurer's annual report, to be issued later, have been to June 1, 1904, as follows:

Treasurer's statement, July 1, 1903, to June 1, 1904.

Received from treasurer of Porto Rico (James H. A. Smith, jr.), as per legislative appropriation, 1903-4	\$21, 440. 00
Paid out for salaries:	
Office of secretary and treasurer, including office expenses	\$1, 498. 25
Normal Department—	
Normal School	\$7, 776. 54
Practice School	4, 995. 13
Agricultural School	1, 405. 00
Janitor service	877. 85
	15, 054. 52
Contingent expenses	1, 875. 30
	18, 428. 07
Balance of legislative appropriation, June 1, 1904	3, 011. 93
Received from other sources	263. 99
Balance available	3, 275. 92

With the bills now outstanding and salaries payable in June deducted, it is probable that there will be a small balance of the legislative appropriation still unexpended at the end of the fiscal year.

Farm.—The completion of the transfer of the American fruit farm to the trustees of the university early in September brought to the university some 98 acres of additional land, a small part of which was under cultivation. There were on the place about 9,000 pineapple plants (Smooth Cayenne and Carbezona varieties) in fair condition; a nursery of 20,000 native sour orange trees, 200 of which was or had been budded; an unfinished farmhouse; an assortment of agricultural implements, and a storehouse containing fertilizers.

To care for this place and extend cultivation on it, a farmer was employed, whose salary was fixed at \$25 a month, with rent of that part of the farmhouse not occupied by the secretary and treasurer. Provision was also made for the employment of two day laborers at 40 cents the day, one on whole and the other on half time, and for an incidental supplies expenditure of not to exceed \$5 a month. The maximum expenditure provided for for maintaining and extending the cultivated area of the farm was \$45.60 a month. By action of the finance committee in February, afterwards ratified by the board of trustees, this amount was increased by \$5.20, by authorizing the treasurer to engage the second laborer all instead of half of the time.

Owing to the fact that the place had lain idle for two months, during the unavoidable delay incident to transferring the property, much of the initial work of the farmer consisted in clearing the land already cultivated.

Since October 19, 1903, Mr. Vail, the resident farmer, reports work done as follows:

The original pineapple patch of about one-half acre has been extended to about 2 acres; 8,200 pine suckers have been set out; the Carbezona patch has been cleared of weeds and hoed; the entire acreage in pines has been hoed and twice fertilized.

The nursery has been cleared of weeds and 150 budded orange trees have been set out among the pines, in grove form, the arrangement being in rows 15 feet apart, with 20 feet spacing between trees in the row. As the native sour orange trees had grown too large for budding when Mr. Vail began work, it was necessary to cut them all down and wait for new stalks to be sent up for budding. As these have reached the budding age they have been budded with choice Porto Rican varieties or with Florida stock. The farmhouse roof has been painted. About 100 rods of wire fence has been set. Mr. Vail's work has undoubtedly suffered from lack of proper implements to work with.

The pineapple shipments from the farm, from which the principal revenue must be derived this year, have just begun. To date about 50 crates, mostly Carbezonas, have been sent to New York. The receipts from the first consignment of 14 crates (the only one heard from at this writing) were \$49.40 gross. The net receipts were \$39.28. The total shipments for the season will probably be about 2,500 pines.

In this connection it should be stated that Carbezona pineapples, which are not regarded as good shippers by Porto Rican growers, have shipped well with us this year, and have brought very high prices. It seems that if carefully packed they can be placed on the New York market in prime condition. They are liked by the New York trade, and if got there early in the season should prove a profitable pine for Porto Rican shippers. I would recommend the extension of the present Carbezona acreage.

The farmhouse is still unfinished. If completed for two families an ell should be built on the southwestern side, parallel with the original ell, to make room for a kitchen. If no further changes are made I should say the house could be finished for \$500.

Water for household purposes, for a time at least, could be collected from the roof. There is already a cistern, and provision should be made for making it tight and serviceable. A wooden tank under the roof, resting on the timbers to which the ceiling is attached, should be taken down and set up outdoors.

The farm account is as follows (October 19, 1903, to June 1, 1904):

Receipts:

Sale of plants	\$70. 90
Sale of pineapples	54. 40
Sale of 1 bag nitrate soda	4. 50
Sale of 1 bag tobacco dust	1. 78
Rent of oxen	1. 12
Bills receivable	5. 00
Rent of land	7. 75
Total cash receipts	145. 45
Add value of plants set out (8,200, at \$40 the 1,000)	328. 00
	<hr/> \$473. 45

Expenditures:

Supervising farmer	189. 77
Labor	131. 20
Fertilizer (taken from stock)	39. 00
Supplies (estimated)	20. 00
Pineapple crates (estimated)	8. 00
Freight	3. 78
Cartage	1. 40
Commissions	4. 90
Paint for house	22. 95
Total expended (estimated) June 1, 1904	421. 00
Balance	<hr/> 52. 45

From the plants now set out the suckers to be set out in 1904-5 should number at the present rate of increase about 21,000.

Leases of land.—For a time previous to the beginning of the fiscal year 1903-4 there had lived on the property of the Normal School a number of peon families. They lived in shacks belonging to themselves, but paid no rents for the lands. With the acquisition of the American Fruit Farm more families were added to this number. In February, by order of the finance committee, it was undertaken to place all squatters on the property of the institution on a rent-paying basis. Notice was served verbally, and a number of undesirable families were asked to quit, which they did. Eleven remained. A form of lease, approved by the attorney-general of Porto Rico, was presented for their signature. For the first time they were permitted to hold land under legal guarantees. The effect has been good. Occupants who formerly neglected the land are now cultivating it, and incidentally are learning valuable lessons in business methods. A clause in each lease prohibits the planting of any sugar cane or other crop requiring more than eleven months for its full maturity. The revenue derived from this source, should the present arrangement continue, will be about \$160 the year.

Library.—In October, 1903, a circular-letter asking for such printed State documents, annuals, special reports, etc., as might be for free distribution through his office was addressed by the chancellor of the University of Porto Rico to the secretary of each of the several States and Territories of the United States. Replies were received from nearly all letters sent out, and quantities of books, varying from a few pamphlets to heavy boxes full, were received from the following: Lewis C. Laylin, secretary of state, Ohio; F. I. Dunbar, secretary of state, Oregon; J. R. Burrow, secretary of state, Kansas; James G. Stoddard, secretary of state, Arizona; David Ross, bureau of labor statistics, Illinois; J. Thomas Hetlin, secretary of state, Alabama; E. H. Jenkins, Ph. D., director, Connecticut Agricultural Experiment Station; H. Clay Crawford, secretary of state, Florida; George W. Martin, secretary Kansas State Historical Society; George M. Hays, secretary of state, Montana; J. W. Reynolds, secretary, New Mexico; Hugh Hastings, esq., State historian, New York; Melvil Dewey, director, State library, New York; Horace G. Tennant, second deputy secretary of state, New York; G. L. Flanders, assistant commissioner of agriculture, New York; William Grimes, secretary, Oklahoma; Lewis E. Beitler, deputy secretary of state, Pennsylvania; John W. Morton, secretary of state, Tennessee.

From the United States Government have been received copies of the reports of the Twelfth Census, full set; Employees and Wages; Reports on the Philippine Islands and Porto Rico, numbering 40 volumes; Smithsonian Institution reports, 12 volumes; reports American Historical Society, 6 volumes; Charters and Constitutions of the United States, 2 volumes; reports of Department of Agriculture, United States Commissioner of Education, etc. The whole number of bound volumes so received is about 500. Pamphlets and unbound publications, about 300.

By courtesy of the secretary of Porto Rico several hundred copies of the register of Porto Rico, 1903, were placed at the disposition of the library for exchange purposes; also current insular reports.

The library is indebted to Hon. S. M. Lindsay, Hon. W. F. Willoughby, Mr. Paul G. Miller, The American Book Company, Mr. F. M. Pennock, and Eldridge & Bros., of Philadelphia, for gifts of books.

In January, 1904, the secretary of the board of trustees was made librarian.

The money paid out on account of library has been about \$27, distributed as follows: Postage and stationery, \$5; express and cartage, \$16.46; printing, \$5.54.

Grounds.—The grounds of the university have been cared for out of an appropriation of \$600 for "additional labor and school garden," about \$450 of which will have been spent at the end of the year.

Owing to the great interest in athletics and the desirability of giving every encouragement possible to it, one tennis court and one basket-ball ground were constructed, at a cost of about \$20, during the year. A baseball ground, for practice, was also cleared, near the normal building.

Through the courtesy of the honorable secretary of the interior of Porto Rico the heavy steam road roller was for several days placed at the disposition of the university for rolling the driveway leading by the normal building. At the suggestion of the superintendent in charge of the roller, who feared that that part of the road lying between the Normal School building and the prin-

principal's house would not hold up the heavy roller otherwise, a quantity of crushed rock was placed upon the weaker parts of the road and more placed in readiness for future use before rolling was begun.

It was found, however, that the rock bed of the entire driveway between the principal's house and the Normal School was too shallow to support the roller without considerable more additions of crushed rock than were at hand, so rolling there had to be suspended. Other parts of the road were greatly improved by the work done.

The work of keeping the driveway free of weeds has proven an expensive and discouraging task, the labor of one man the greater part of the month being required to do it. Until the road is put in such condition that weeds will not grow in it, there seems to be no substitute for it.

Janitor service.—Janitor service has been performed by two head janitors and an assistant janitor, at a total cost of a little more than \$78 a month. During September and October a second assistant janitor was employed. As it seems likely that this work could be as well done by one head janitor, employing his own help, under contract with the university to do the work as it is now being done, this has been suggested for the coming year, and provision made for janitor service at a cost of \$720 the year.

Water service.—A heavy item of expense the past year has been water, which is now received from the city of San Juan. The cost to the university for supplying the Normal and Practice School buildings and the principal's house, for 1902-3, estimating the amount for May and June, bills for which have not yet been received, has been about \$275. By a careful attention to the water system the water consumption has been greatly reduced, the water bill for April being \$19.50, as against \$52.75 for February; but the bill is still very high for the quantity of water used.

Student labor.—During the year one student was employed for a part of the time under the director of agriculture. The amount paid out under this head was \$24.90.

The press.—The newspaper press of San Juan and other towns on the island has been especially friendly to the university, and by giving friendly publicity to its doings has placed the university under a debt of obligation not easily repaid. Especially are the San Juan News and the Correspondencia of San Juan to be thanked for their courteous publication of news relating to the institution.

Buildings.—The roof of both the Normal School building and the ell of the principal's house have been painted, the contract having been let in each case to the lowest bidder. The cost was \$50 and \$75, respectively.

The roof of the Practice School building has given much trouble, the leaks at times being so bad as to seriously interfere with the work of the classes below. One contract to make the roof tight was let for \$8, but the leaks are now apparently as bad as ever. The check for this work has been held up pending a satisfactory completion of the work by the contractors.

While no details are here suggested, I would like in this connection to call attention to the need of school dormitories. The provisions for board in town are doubtless as good as could be found in any village of the size, but for serious work the students need the helpful stimulus of dormitory life.

In conclusion I wish to thank those who have been associated with me, especially Mr. Miller, principal of the normal department; Mr. Pennock, of the agricultural department; Miss Huntington, principal of the Practice School, and yourself for many courtesies which I can not repay but by remembering.

Very respectfully submitted.

D. N. HANDY,

Secretary-Treasurer, University of Porto Rico.

Hon. S. M. LINDSAY,

Chancellor, University of Porto Rico.

REPORT OF PRINCIPAL OF NORMAL DEPARTMENT.

UNIVERSITY OF PORTO RICO,
Rio Piedras, P. R., May 31, 1904.

SIR: I have the honor to submit the following report on the work of the normal department for the school year which will end in a few weeks:

On September 1, 1903, I entered upon my duties as principal of this school and immediately began preparations for opening the school. During the summer I

had prepared an outline of a course of study, which, although not altogether satisfactory on account of the large number of subjects to be crowded into three years, appeared to be better suited to the needs of the school than the course in force during the preceding year. Experience has shown that in a normal school the concentration of effort and attention on a few subjects for a limited time, with daily recitations, is productive of better results than pursuing a large number of subjects for a longer time with only occasional recitations.

I found that the text-books in use were in almost every case the same as are being used in common schools, and hence were too elementary in character to serve as an aid in giving students a broad, independent knowledge of the subjects they are called on to teach. Such advanced books, suited to the needs of the school, as could be secured were obtained before the opening of the school year. Many of our text-books compare favorably with those used in high and normal schools in the United States. The stationery and supplies furnished are of the same quality as those furnished for the public schools. More written work could have been demanded in the several classes if the supplies had not been so limited in quantity and if requisitions had been filled with greater promptness. However, some of the students have obviated this difficulty to a certain extent by purchasing the necessary materials for their use.

School was formally opened September 28, 1904. Although many unfavorable reports, intended to discourage the management of the school, had been made current during the vacation, 119 students presented themselves at the beginning of the school year, and all classes, with the exception of those in gymnastics, began work promptly at 8.45 a. m. of the first day. The number of students has varied throughout the year. In all, the normal department proper (not including the practice school) has given instruction to 173 students. Of this number, 97 are ladies and 76 are gentlemen. The enrollment, by classes, has been as follows: Third-year class, 13; second-year class, 29; first-year class, 60; special course for rural teachers, 71. The age of students varies from 15 to 39 years.

A more earnest and industrious body of young people can not be found in Porto Rico than the student body of the normal department. Their general bearing clearly indicates that they are here with a fixed purpose. Aside from the rural teachers enrolled for the special course, 18 of the regular-course students hold certificates as teachers. That they continue their studies after having received certificates is something new in Porto Rico. It shows that our young people no longer strive for an education merely for its commercial value, but are beginning to appreciate its real worth as a means for acquiring power. As a whole, the student body has shown a good degree of public spirit, earnestness of purpose, and a spirit of loyalty to the institution of which they form a part. Under proper guidance the students have founded and maintained a reading room, where 40 newspapers and magazines are received, many of them being contributed by publishers and other friends of the school. They have also organized the Campos Choral Society, which meets once a week for practice in vocal music. A well-organized athletic association exists in the school, managed by the students themselves. An interclass field day was held March 12, 1904, and another interscholastic meet took place May 28, 1904, between students of this department and of the San Juan High and Graded School. Although the contest was won by the young men of the high school, the normal department students carried off a majority of the first prizes. These student organizations have been of great benefit in training students to take responsibilities, and in creating a spirit of loyalty to the school.

On entering upon my duties here I found that a surprisingly low standard existed for making promotions. A minimum of only 50 per cent was required to pass in a branch, and the average was obtained by giving the class standing a value of two-thirds and the examination a rating of one-third. Thus it happened that pupils were promoted in such important branches as arithmetic, English, etc., when, as a matter of fact, in their examinations they were rated as low as 15 per cent. The class standing being rather elastic, it was an easy matter to favor pupils. Under the present standard students are required to obtain a minimum of at least 75 per cent in each study taken, approving the various branches separately, and not by years. In arriving at the average the class record counts for one-half and the examination for one-half. Attendance, promptness, and conduct are not included in any average, nor is a numerical mark given on conduct. As students of a normal school are expected to teach the subjects which they take up in their academic work, it is eminently just to the pupils they are to teach in the future that a high degree of scholarship be

demanding in preparation for this work, and hence the management feels that the present system of promotions is far more just to the educational interests of the island.

To speak of the work of the school in general terms, I wish to say that, on the whole, it has surpassed our expectations. To understand this statement correctly one must know the conditions under which both teachers and students have done their work. The absence of a good reference library and laboratories have necessarily tended to make the work narrow, although some of the teachers have helped their classes by borrowing books on their own responsibility from libraries in San Juan. Then, again, one must consider the conditions under which our students live. Río Piedras has few houses suited for students' boarding places. To be able to devote the evenings to study in a proper manner a student should be alone, in a room of his own, with a proper light, and should not have his attention distracted by any outside influence. Here the conditions for study are exactly the opposite. As a rule, students living at the same house are seated around the dining-room table or in the sitting room. Those that do study in separate rooms often have only a candle for light. As the houses are built close to the street, students are disturbed by passing coaches, the cries of street urchins, the talk of loafers, and other promiscuous noises, to say nothing of frequent callers and distractions caused by members of the family. Considering these conditions, our students have done very commendable work. After establishing proper laboratories, a good library, and a spacious dormitory, built on the campus away from the town, we may expect far better results.

Comparing the quality of work done by the pupils of the various classes, I may say that the work of the second-year class was better than that of the third-year class, and the first-year class is doing a better quality of work than the second-year class. This condition of affairs is due, of course, to the gradual raising of the entrance requirements. The first-year class was divided into a Spanish and an English section, the latter doing their class work largely in English. Their work is not only in English, but on account of their ability to use English reference books they have done exceptionally good work in all the other classes. This English section was organized largely as an experiment to find out whether or not we are ready to place the school on an English basis. This experiment has been a success, and in making a working knowledge of English one of the entrance requirements the board has acted wisely. If English is to be generally introduced in this island, our Porto Rican teachers should be able to teach that language, and in that language, without losing sight of the importance of Spanish.

The third-year class plainly shows a lack of proper basis in their work, while the second and first year classes contain some very promising material. About one-half of the present third-year class will come back to take the work of the fourth year of the new course of study. Since the board has adopted the regular four-year course, which will go into effect next year, we have attempted to adjust the work in such a manner as to cause the slightest possible inconvenience in making the transition.

Perhaps the most important feature of the work of the school has been the practice teaching done by students of the second and third year classes in the model school. Not only have these students taught classes under proper direction, but they have been required to present lesson plans on every lesson taught, to be responsible for discipline and records. It is hoped that these students when engaged in actual work will cause superintendents little or no trouble, and that they may be good examples to those teachers who have not had the benefit of a normal school teaching. The lesson plans worked out by these practice teachers compare very favorably with those of American students in the United States.

Among the prominent features added to the work of the school allow me to make mention of the monthly rhetorical exercises, in which students of the second and third year classes have taken part, each one presenting a recitation and an original essay during the school year. This work has been of great benefit to students, not only in the cultivation of clearness and correctness of expression and independence of thought, but also in training the future teacher in habits of self-control, overcoming self-consciousness, and in giving the poise necessary to an impressive personality. This work has been given in both English and Spanish. In addition to several general programmes, Thanksgiving Day, Arbor Day, Washington's Birthday, and Memorial Day have been appropriately observed. The music on these occasions has been furnished by the student body,

and it is only just to them as well as to the music teacher to say that the chorus work has improved wonderfully during the school year.

The special course for rural teachers has not been altogether satisfactory. There are several reasons for this. While these teachers may have learned something about the common school branches, the course is too short to serve as mental discipline of permanent value. Many of these teachers evidently had never been in schools where discipline was required; hence they demanded far more attention in this respect than our regular-course students. It also appears that some of the superintendents sent teachers that were wholly incompetent. They also proved to be failures as students, and even after taking the special course could not possibly have passed the entrance examination. Of the three groups of teachers sent by the department of education, the last one contains the best material. The principal benefits gained by these rural teachers have been the new experience in attending a normal school, in observing the work of the model school, and in looking upon their profession from a new standpoint. However, I think it was wise on the part of the legislature not to have made any provision for sending teachers to this school next year.

No attempt has been made to implant a system of primary school discipline. While the discipline can be greatly improved, taken as a whole it has been good. We have no written or printed rules to guide the conduct of students. Their conduct is judged by an exhibition of the characteristics of ladies and gentlemen and the formation of good personal habits, rather than by actions determined by rules. In general, I found the students willing to do right and to respect the rights and duties of others.

Of the 13 members of the third-year class 9 will receive the diploma of the three-year course. About 40 of the students enrolled at present are planning to take the examination for securing a rural or graded certificate, and about 30 are making plans to go to the United States together with the expedition of Porto Rican teachers.

This report would not be complete without making due acknowledgment of the many favors shown the principal in managing the affairs of this school. I am greatly indebted to the members of the faculty for their hearty cooperation and for the interest they have shown in the aims and plans of the school, and in this connection I wish to say that I am especially grateful to the following teachers: Mr. Felipe Janier, the vice-principal; Miss Susan D. Huntington, Mr. F. M. Pennock, Miss Elizabeth F. Hall, Mr. Jose Janer, Miss Ruth A. Gottlieb, and Miss Lina Estella Test. I speak of the work, cooperation, faithfulness, and loyalty of these teachers in terms of unqualified praise. I am also indebted to the student body for the promptness, cheerfulness, and willingness with which our students have performed their work. I am grateful to Mr. D. W. Handy, secretary and treasurer, and especially to you for many helpful suggestions, friendly criticisms, and words of encouragement. For all of these I desire to express my sincere thanks.

Respectfully submitted.

PAUL G. MILLER,

Principal, Normal Department, University of Porto Rico.

HON. SAMUEL McCUNE LINDSAY,

Chancellor, University of Porto Rico, San Juan, P. R.

REPORT OF PRINCIPAL OF PRACTICE SCHOOL.

UNIVERSITY OF PORTO RICO,
Rio Piedras, P. R., May 31, 1904.

SIR: September last the Practice School was organized with eight grades and a kindergarten. The total enrollment is 192. No week passes without applications from parents who wish their children to enter the school, but the lower grades are always full, and many have to be turned away. The pupils have improved in regularity of attendance and show the best possible spirit in their work. The practice teachers from the normal department have observed the work of the grade teachers and they themselves have done good work, under close criticism, in teaching reading in English and Spanish, writing, arithmetic, geography, Spanish grammar, and calisthenics. They are intrusted with reports, discipline, direction of opening exercises, and are made responsible for the progress and all-around development of the pupils in their charge.

Grades I to VI follow the official course of study, taking certain subjects in English and others in Spanish. Grades VII and VIII serve to prepare pupils to enter the Normal Department. These pupils come from all parts of the island. Half of those enrolled this year have studied in the United States, so they may be expected to use fluently both Spanish and English.

Throughout the school the grading is gradually being perfected. Next year we expect all grades will be doing the work of corresponding schools in the United States. The pupils show marked ability in drawing, manual training, and language work. They are docile, attentive, and responsive. In the kindergarten promptness and obedience have been taught, and the child's natural interest in music, stories, and bright colors has been trained. Children entering the primary grades from the kindergarten are much better developed than those who have had no such training. A Young Defenders' League has been organized for the prevention of cruelty to animals, and interest in this subject has extended through all the grades. Parents' meetings have been held monthly, with an average attendance of 15. Thus the home and the school have been brought into closer touch with each other. Miss Ward can not be too highly commended for her unflinching tact, devotion, and skill.

None of the work of the school is more interesting than the classes in manual training. Grades I and II have completed a course in paper folding, and the pupils of these grades have made scrap books from pictures selected by themselves. In connection with the study of Robinson Crusoe and later in furnishing a playhouse, the children have taken up clay modeling, palm weaving, paper folding, paper cutting, designs in colors, and sewing. The girls of Grades III and IV have completed a brief course in plain sewing, and the boys of those grades have worked at paper folding, cardboard instruction, and elementary knife work. Drawing, knife work, and nature study have been correlated in making and lettering labels for a hundred varieties of trees and other plants on the school campus. Grades III and IV have cultivated school gardens, planting flowers and vegetables in individual plots, and observing the cultivation of cotton and other large crops. The budding of orange trees, the effect of parasites, and the utility of certain insects, birds and lizards have been studied in connection with this work.

School excursions have been made in connection with the courses in geography, nature study, and history of Porto Rico. These excursions serve as a basis for English composition. The pupils are interested in games and athletics. Baseball and basket ball are played on the grounds, and contests in running, jumping, and putting the shot create enthusiasm.

The school savings bank continues to prosper. Nearly every pupil is a depositor. As soon as the amount saved warrants, deposits are transferred to the Banco Popular, in San Juan, where pupils may draw interest. Praise is due to all the teachers for their hearty cooperation in all that may advance the interests of the school: Miss Mowry, Miss Stone, Miss Hoffman, and Miss Campbell of the grades; Miss Ward, Miss Ramirez, Miss Pales of the kindergarten; Mr. Pennock, Miss Dorman, and Miss Test, special teachers of gardening, drawing, and music.

Respectfully submitted.

SUSAN D. HUNTINGTON,

Principal, Model and Practice School.

HON. SAMUEL McCUNE LINDSAY,

Chancellor, University of Porto Rico, San Juan, P. R.

REPORT OF THE DIRECTOR OF AGRICULTURE OF THE UNIVERSITY OF PORTO RICO.

SIR: I have the honor to submit my report for the year 1903-4, in conformity with your recent request. For this, the first year of the University of Porto Rico, the lack of means has prevented the establishment of a course in agriculture, as provided by the charter. My duties have been the teaching, in the Normal Department, of those branches most nearly related to agriculture, namely, botany and nature study, and the school gardening given to the pupils of the Practice School, together with the supervision of the university grounds.

Nature study and botany form the natural introduction to agriculture and to scientific research, at the same time fitting the pupil to comprehend the struggles of life and how to meet them.

A part of my work during the past year has been the maintenance of the roads and walks of the campus, as well as to give advice and assistance, along agricultural lines, to the secretary and treasurer of the university on matters pertaining to the university farm.

An appropriation of \$600 was made by the board of directors to cover the various kinds of work which I was to carry on, but the contingency fund was so small that a considerable sum has been diverted to uses totally apart from agriculture.

Permanent improvements.—The portion of the university grounds lying among the Carolina branch of the American Railroad were not graded when the Practice School was built. In order to utilize this part of the campus for a playground it has been leveled at considerable expense, and there have been constructed upon it a tennis court, for the use of the young ladies of the Normal School and a basket-ball court for the girls of the Practice School. Help was also rendered by the laborers, under my direction, to the boys of the Normal School and of the Practice School, in work upon their respective base-ball grounds. A walk was constructed to facilitate the pupils of the Practice School in passing to the school garden. A considerable amount of sodding has been done to improve the lawn along the borders of the roads approaching the Normal building.

An important piece of road repairing was carried out this year which was urgently needed, and for which no other funds were available, except those which were being expended under my direction. In carrying out this work, which required most of our force for over a month, I was fortunate in discovering suitable road materials upon the university farm, near at hand, so that the total cost of this needed improvement was very moderate.

The planting of shade trees and ornamental shrubbery is a permanent improvement which has received considerable attention during the past year. It has been the policy adopted to plant small trees, carefully preparing the holes, rather than trees of a large size. The latter are more expensive to move, and it is difficult to avoid injuring their small roots, which causes permanent injury. The thrifty small tree, transplanted without material injury to its roots, will usually make the better tree of the two in a short time.

Another permanent improvement now in progress is the thinning out of the thicket to the eastward of the Normal building, where it is proposed to have a grove of native shade and timber trees. The desirable species of trees, shrubs, and vines are being left, and others will be planted from time to time.

Maintenance of grounds.—This work has been the largest expense from the agricultural appropriation. There is nearly half a mile of stone road, with stone gutters on each side, to be kept up and weeded, which, in a region having the abundant rainfall of Rio Piedras, means the constant work of one man.

The cultivation of the flower beds and the spaces around the trees and shrubs is a large and constant labor, while the cost of keeping in presentable condition the interspaces along the borders of the roads, where the horse mower can not be operated, is no inexpensive task on the extended grounds of the university. A considerable portion of the grounds are still too rough to be mowed except by the slow use of the machete.

School garden.—On account of the large amount of time I was obliged to devote to the botany and nature study work in the Normal School and to the operations upon the university grounds, the school garden has not received as much attention nor as large a share of the appropriation as its importance would warrant. A comparatively small sum will be expended on the garden this year. The propagation of fruit trees, shade trees, and decorative plants has been a feature of this work during the current year, and the amount expended in the purchase of these items among the supplies has been proportionately less than it was last year.

There are over 200 budded oranges and other citrus fruit trees in the garden nursery. The budding of these trees was utilized for instruction in all my classes in both schools. The Practice School children wrote satisfactory accounts of "How to bud an orange tree," which information they gained from observations and explanations made to them in the school garden.

The location of the garden immediately adjoining the Whittier School, which has been devoted to nature study and botany, is satisfactory in all save one respect, namely, that the land itself is extremely poor, and the results, unless high fertilization be resorted to, are sometimes discouraging to the children and to the teacher as well.

The interest in the gardening work on the part of the pupils has been

unabated nevertheless, and an increased amount of skill in the use of tools has been developed by the pupils.

Gardening is not a simple operation, and to master it, like the learning of a language or of music, requires years of patient practice.

This year I adopted the plan followed at Hampton, Va., of giving a garden to each two pupils. Every garden lesson is likely to require at least two tools and a large number of distinct operations, in which the pupils under this plan of assignment learn to cooperate in their work.

A new feature of our school gardening this year was the planting of bananas, yams, pineapples, and other valuable crops which require a long season to mature. This class of plants yield a larger return for the labor expended than short-lived crops like beans, radishes, and the like, and they are practically free from the attacks of the mole cricket.

We have made more general use in the school gardens this year of flowering plants than we did last year, the varieties chiefly employed being French cannas, vincas, cypress vines, and dracenas.

We have planted some Red Spanish pineapples, which is the variety most used in the United States, because, although small, it is the best shipper of them all. We also have the Cabezona and the Smooth Cayenne, the varieties which are now being successfully exported to New York from the university farm.

Last year we introduced the so-called "fresas," which are not a strawberry at all, but a species of raspberry. They grow in abundance near Las Piedras. Where they were set in the shade of bananas they have yielded a moderate crop of fruit, and at the same time they have furnished the botany classes with material for the careful study of the flower and fruit of the important family Rosaceæ, which is not abundantly represented in our local flora.

Disposition of the products.—The vegetables, fruits, and plants produced, other than those raised by the pupils, have been sold, and monthly settlements accompanied by vouchers have been made to the treasurer for the same. The amount of such sales, while small, about \$60 for the year, will exceed the sum paid for peon labor, paid for work upon the garden and garden nursery; while the value of the fruit and ornamental trees and the plants produced in the garden during the year is estimated at \$25.

Objects of the school garden.—School garden work aims at imparting a first-hand knowledge of the growth of plants and how to cultivate them, as well as skill in various garden operations. The school garden also furnishes plants and other natural objects for botany and nature-study lessons. School gardening is a powerful influence in overcoming the prejudice which exists in Porto Rico and in many other parts of the world against useful, honorable, manual labor.

As I am called upon for a report as director of agriculture only I shall not attempt to outline my work in nature study and botany, an idea of which may be gained from these courses as they appear in the prospectus of the Normal Department for the year 1904-5, I will simply say that in the work of these classes it has been a source of deep satisfaction to fix the attention of young minds upon the close observation and description of the common forms of life, where unexpected beauty of form, of adaptation, and of relationship awaits us at every turn.

It is with regret that I shall probably relinquish this part of my work and my direct connection with the Normal Department of the university, but it is with the firm conviction that the new department in the upbuilding of which I am to have a part has within it the promise of great power in the development of the better and more prosperous Porto Rico that is to be.

Respectfully submitted.

F. M. PENNOCK,
Director of Agriculture.

The Hon. SAMUEL M. LINDSAY,
Chancellor of the University of Porto Rico.

EXHIBIT V.

REPORTS ON PORTO RICAN TEACHERS' SUMMER STUDY TRIP TO THE UNITED STATES.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF THE COMMISSIONER,
San Juan, September 12, 1904.

SIR: I have the honor to submit herewith a report on the Porto Rican teachers' summer school expedition during the summer of 1904.

In accordance with a joint resolution of the Congress of the United States, approved February 12, 1904, entitled "Joint resolution for the transportation of Porto Rican teachers to the United States and return," the United States Army transports *Kilpatrick* and *Sumner* came to Porto Rico for the purpose of conveying the teachers to the United States, where summer courses had been prepared at two of the great American universities.

The expedition, composed of about 475 teachers and 25 attendants, was divided for administrative purposes into 10 sections, each approximating 50 teachers and each having at its head a superintendent known as a "section chief."

The *Sumner* arrived at Ponce Saturday, June 18, and the *Kilpatrick* about the same time at San Juan.

On Thursday, June 23, the teachers began leaving their homes for the purpose of mobilizing at Ponce and Mayaguez, where the *Sumner* took them on board for San Juan. It was intended at first to designate where each teacher should embark, but it soon became evident that this was impracticable on account of many teachers residing in places other than where they were teaching, and they were accordingly notified that they might select their own ports of embarkation.

I desire at this time to acknowledge with thanks the courtesies extended to the teachers by the railroad companies, the Ponce-Guayama Railroad furnishing transportation gratis over their road, and the American Railroad Company allowing half-fare rates over all parts of its road.

The *Sumner* left Ponce Friday morning, June 24, at 9 o'clock; Mayaguez, Saturday morning, June 25, at 9 o'clock, arriving at San Juan Saturday evening about 7 o'clock. Owing to the lack of sleeping accommodations aboard the *Sumner*, it was necessary to transfer about one hundred and fifty teachers to the *Kilpatrick*, which was anchored out in the bay, and the task was accomplished by means of the transport launch, with trailers. Twelve o'clock saw the teachers safely transferred, but it was 2 o'clock Sunday morning before the last of the trunks had been hauled from the quartermaster's wharf to the New York and Porto Rico Steamship pier, where the *Kilpatrick* was expected to dock Sunday morning.

Sunday morning dawned bright and fair, and at 10.45—forty-five minutes after the scheduled sailing time—the *Kilpatrick* left her moorings at the steamship pier, with sections 1, 2, 3, 4, 5, 6, and 10 safely on board, bound for Charlestown Navy-Yard, Boston. The *Sumner* followed with sections 7, 8, and 9, bound for New York, with Cornell as the objective point.

The crowds which stood on the wharves and watched the ships steam safely out of the harbor were probably the largest that ever wished a ship Godspeed, and many eyes were wet with tears when the insular police band, which the governor had loaned for the occasion, played the national air of Porto Rico.

After being out a few hours, the *Sumner* passed us, and I shall be obliged at this point to leave the report of the Cornell party to Mr. J. W. Zimmerman, the assistant business manager, who was in charge of same.

Before Moro Castle was out of sight the teachers began to be seasick, and Sunday afternoon saw great distress among them due to this cause. To the faithful and untiring efforts of the stewardesses on board the ship, as well as the assistance of section chiefs, interpreters, and chaperones, I attribute the improved and more satisfactory conditions which existed the following morning.

There were complaints on the part of the teachers and complaints on the part of the ship's officers, so, for the purpose of remedying these matters, I asked the section chiefs to meet me at 9 o'clock Monday morning, at which time I had a stenographer take down the complaints which they had received from the teachers and which they themselves had to make, together with any recommendations for the bettering of conditions.

This being accomplished at 10.30, I accompanied the quartermaster-captain on a tour of inspection, inviting his attention from time to time to matters which were unsatisfactory to the teachers, and receiving from him such complaints as came from the ship's officials.

From that time to the end of the trip we understood one another, we pulled together, and, aside from a few minor complaints at times, everything passed off smoothly.

Early Saturday morning we sighted land, and about 8 o'clock we were met by a delegation of Harvard students, headed by Mr. J. D. Greene, secretary to President Eliot, of Harvard University, and Mr. H. L. Blackwell, with whom I arranged the details for the landing and domiciling of the teachers.

I desire to record my appreciation of the excellent manner in which Mr. Blackwell planned and executed the work of conveying the teachers to their respective domiciles. As we had already given each teacher an expedition number, we carried out the scheme of treating with the teachers by numbers rather than by names.

For convenience in disembarking and transporting the teachers to Cambridge, to agree with the plans of the Harvard authorities, we divided each of our sections into two parts, with a subchief in charge of each group, bearing a distinctive letter. As the groups disembarked they were met by guides bearing corresponding letters, who conveyed them to special through cars, which were waiting to carry them from Charlestown Navy-Yard to Cambridge, where they were shown to their respective lodging houses.

At 6 o'clock they all assembled at Randall Hall for dinner, where they had their first real taste of American cooking on shore.

The question of baggage was rather a serious one, but it served as the first lesson in self-reliance to many of the teachers, who were either unable or disinclined to look after their own hand baggage.

The management had, of course, made arrangements to deliver the trunks belonging to teachers, but it was somewhat nonplussed when they marched forward on the ship to where the trunks were being unloaded and deposited all their hand baggage. The trunks were unloaded by sections and piled neatly on the wharf, but owing to a miniature cyclone which struck us at that time and the appearance of black clouds which threatened heavy rain, we were obliged to move the trunks close together in order that they might be covered with tarpaulins. This operation, combined with the hand baggage, which was being unloaded in slings, resulted in such a grand conglomeration of about 600 pieces of baggage that it was thought advisable to have it transported in large vans to the university. Massachusetts Hall was opened and all the trunks taken there, where the work of assorting and delivering continued until early Sunday morning.

Sunday following, and Fourth of July coming as it did on Monday, it was late Tuesday afternoon before all the baggage was delivered, and it is hardly necessary to add that the teachers carried their own hand baggage on the return trip.

At this point I shall take the work up by subjects rather than try to cover it generally until the date of departure from Cambridge.

GENERAL HEALTH.

I consider it little less than miraculous that among such a large number of teachers sojourning in a strange country there were no deaths, no cases of serious illness, and no accidents. The health of the teachers in general was excellent. Those who were ill suffered principally from colds contracted during the first few days of their stay, when a great many of them were caught out in a shower, while the weather changed rapidly from warm to cold before they could reach their homes.

It is interesting to note that the medical visitor's bill averaged about \$1 per teacher. These statistics, however, do not truthfully represent the value received from this gentleman, Dr. M. H. Bailey, who was untiring in his efforts to keep the teachers in a good condition physically.

I am happy to report that we equalled and, in fact, exceeded the record of the Cuban expedition by bringing all our teachers back who wished to come, leaving none on account of sickness, and walking everyone ashore. There was probably a slight general increase in the weight of the teachers.

LODGINGS.

These were selected and leased in private families by the Harvard committees in charge of arrangements prior to our arrival and were very satisfactory. The men were quartered in one section of the city, while the women were in another. For the purpose of lodging, the expedition was broken up into parties of from 10 to 20, which were thus afforded the comforts of an American home and an opportunity to become acquainted with American home life. The people in general opened up their houses completely, allowing the teachers access to the parlors and pianos, and, in short, seemed to look upon them more as visitors than lodgers.

Owing to the fact that several teachers who had made their contribution to the fund failed to go, we had on our hands the leases for a number of houses which were unoccupied. However, in most of these cases, the landlords were very generous, and we were usually able to compromise for about half the contract price. There were some minor complaints at first on both sides, but upon better acquaintance with one another's customs these matters arranged themselves and the participants in the differences usually became fast friends.

There were one or two cases in which houses were damaged by teachers and where claims were presented, but these, I believe, were only accidents such as are liable to happen at any time to lodgings let to students.

FOOD.

This feature of the expedition was in direct charge of the university authorities, the meals being served in Randall Hall, where our teachers ate, together with some four or five hundred regular summer school students.

As we anticipated, this was one of the features which caused us the most trouble. There was some complaint at first about the food. Some teachers did not like the American cooking; others disliked the manner of serving it, while still others suffered some inconvenience on account of ignorance of American customs in regard to ordering.

The teachers did not take kindly to American coffee, for which they can not be blamed, of course, on which account I made a request for Porto Rican coffee. This the steward succeeded in securing in Boston; but I do not believe the change was much of an improvement.

Some of the things which the teachers enjoyed as much as anything were the rice and beans which were introduced into the menus, as well as codfish occasionally.

The proposition of feeding teachers at a cost not to exceed \$3 per week was a difficult one, but the task was cheerfully undertaken by Prof. J. L. Love, secretary of the summer school, who is to be congratulated on its successful completion.

I can not express too freely my appreciation of the valuable assistance rendered by Professor Love, and to his untiring efforts to cooperate and please at all times is due to a great extent the success of the expedition while in Cambridge.

SOCIAL FEATURES.

Of these there were many, the principal ones, however, being the weekly hops given in the Hemenway Gymnasium for the Porto Rican teachers. There was always a good orchestra in attendance and two guest cards were issued to each teacher. At the close of the course the teachers were invited to listen to an address by President Eliot in Saunders' Theater and to a reception which followed. This affair not only included all of the Harvard Porto Rican teachers, but all of the regular Harvard summer school students, as well as the Porto Rican delegation from Cornell, which happened to be in the city at that time. There were excursions held every Wednesday and Saturday, which included trips to Lexington and Concord, Norumbega Park, Blue Hills Observatory, Boston and Cambridge summer schools, and the printing establishments of D. C. Heath and Ginn & Co.

Dr. and Mrs. S. M. Lindsay entertained the women teachers with a trip to Wellesley College. Mr. A. F. Estabrook entertained the men teachers with a trip to Brockton, where they had the opportunity of seeing the shoe factory of W. L. Douglass in operation. Mr. J. M. Sears also entertained the men with

an excursion to his model farm at Southboro, Mass. Many of the teachers visited Lynn, Salem, and Marblehead as guests of different people. One of the principal features of the social side of the expedition, and one of which very few people were aware, was the dividing of the entire expedition into small groups or cliques, which were entertained by corresponding cliques in and about the cities of Boston and Cambridge. Small dinner parties and week-end parties at the various summer resorts near Boston were numerous, while the people of Cambridge, through the means of small parties and various social affairs, contributed largely to the pleasure of the teachers during their stay in Cambridge. It is safe to assume that nearly every member of the expedition, either on his own responsibility or as the guest of some friend, visited the Boston Public Library and the Art Museum. Through the various social features I believe the Porto Rican teachers absorbed an education such as could not be obtained from any other source.

On August 9, at 10 a. m., the expedition left Boston on the transports *Kilpatrick* and *Sumner*, bound for Philadelphia, where it arrived Thursday afternoon at 3 o'clock. Such teachers as desired and were properly escorted were allowed to go ashore on their own responsibility for the remainder of the day.

On Friday, August 12, at 7 a. m., the expedition left the League Island Navy-Yard on trolley cars for the Broad Street Station, Philadelphia, where a special train was in waiting to convey the party to Washington.

In Washington a special programme, arranged by the citizens' entertainment committee, of which the Hon. Henry B. F. Macfarland, Commissioner of the District of Columbia, Dr. Roland P. Falkner, of the Congressional Library, and others, were members, was carried out. Special cars met the party at the Pennsylvania Railroad station upon arrival, taking them to the Capitol, where they had the opportunity to inspect the Capitol building, and afterwards the Congressional Library. At 1 p. m. the cars left the Library, conveying them to the Arlington Hotel, where a lunch was served, and from which point the party proceeded to the East Room of the White House, where they were received by the President. The President, in a speech of some length, dwelt upon the benefits to be derived from the expedition, and after closing, shook hands with each and every member of the expedition.

The party returned to Philadelphia, leaving Washington at 4 p. m., on a special train. Saturday, August 13, the party was received at the University of Pennsylvania by the vice-provost, Dr. Edgar F. Smith, and a special committee, when they were shown through the more important buildings of the university, after which they were taken on special cars of the Fairmount Park Company for a trip through the park as the guests of former Senator Charles A. Porter. Lunch was served aboard the transports at League Island, and at 3 p. m. special cars took them to Independence Hall, at Fifth and Chestnut streets, where special exercises were held, including a brief address of welcome by the mayor of Philadelphia and a few words on the historical significance of Independence Hall by the chairman of the Philadelphia reception committee, Hon. Charles Emory Smith, former Postmaster-General of the United States.

The transports left Philadelphia about 2 o'clock Sunday morning, arriving in New York early Monday morning. Here, for the purpose of transportation, the party was divided into four sections, and the principal features of the day spent in New York were the automobile trips on the "Seeing New York" automobiles, through Central Park, to Grant's tomb, and Riverside Drive, the visit to Public School Building No. 188, the largest public school building in the world, where the party was met by the Hon. Charles V. Farnes, acting mayor of New York City, and Dr. William H. Maxwell, superintendent of schools of New York City. The crowning feature of the day spent in New York was the trip to Coney Island. This spectacle, the most interesting part of which is known as "Dreamland," was so exceedingly attractive to the teachers that it was with difficulty they were collected in time to take the last boat back to New York City.

The expedition sailed from New York August 16, 1904, at 1 p. m., arriving in Porto Rico Monday morning, August 22. As soon as practicable those teachers who were bound for Mayaguez and Ponce were transferred to the *Sumner*, where I am informed they arrived safely.

Before closing, I wish to acknowledge the hearty support extended to the expedition by the Harvard and Cornell authorities, especially mentioning Prof. J. L. Love, Secretary of the Harvard Summer School, and Mr. J. D. Greene, secretary to the president of Harvard, for their assistance and cooperation, the section chiefs, interpreters, and chaperones, as well as the office force which

accompanied the expedition, and to extend to the commissioner of education the congratulations to which he is entitled as the originator of the expedition, to whom the success of the same is due.

I append herewith a financial report, showing receipts and disbursements.

Very respectfully,

T. B. WIEDMAN,

Business Manager Porto Rican Teachers' Summer School Expedition.

The COMMISSIONER OF EDUCATION,
San Juan, P. R.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF THE COMMISSIONER,
San Juan, July 30, 1904.

SIR: I have the honor to submit herewith a report of my visit to the Porto Rican teachers' summer school expedition at Cornell University, Ithaca, N. Y.

HEALTH.

The general health of the teachers is remarkably good. The few cases of indisposition which occur from day to day consist principally of colds, due undoubtedly to the inability of the Porto Ricans to appreciate readily the sudden changes of temperature and dress accordingly.

Located as it is on a high hill, Cornell is blessed with an abundant supply of fresh air and its location renders it naturally very healthful in general.

There have been, aside from a few cases of ptomaine poisoning, but two cases of a serious nature, one the result of an accident, being a crushed toe, the other a case of blood poisoning, as the result of an abscess on the arm. This case was undoubtedly in need more of careful nursing than anything else, and I accordingly instructed his removal to the infirmary. The poisoning cases, about 30 in number, resulted, it is supposed, from a poor quality of meat which was furnished to the men. These cases occurred only among the men, and while they were severe for about twenty-four hours, they all recovered within two or three days and are at present feeling no bad effects.

QUARTERS.

The women, about 50 in number, are provided with most excellent quarters in Sage Hall. They have separate beds and practically separate rooms and everything is comfortable and cozy; the social hall is at their disposal and they are much pleased with the arrangement in general.

The men are divided between four or five houses, about 25 to each house, just outside the university grounds. These houses, while owned and conducted by private families, have been built especially for the purpose of rental to students, and they are equal, if not superior, in every respect to the average dormitories of other universities.

Cornell has no dormitories for men, which no doubt accounts for the excellent accommodations afforded students. The rooms are well furnished; each teacher has a single bed, though in some cases two occupy the same room; the rooms are airy and light; there is a desk or two with a student lamp, and they are very complete in arrangement.

These houses have bathrooms on every floor and modern conveniences of every kind. In short, I consider the Cornell teachers, both male and female, are most excellently housed.

FOOD.

This subject is one which has caused more inconvenience to all concerned than any other feature of the expedition. Generally speaking, the teachers have not found American food to their liking. Realizing this, there has been an effort made by all parties concerned with the furnishing of meals to cater, so to speak, to their likes. Rice and beans have been especially prepared for them, as well as codfish, and though unable to secure Porto Rican coffee, they have been abundantly supplied with milk, cocoa, and tea.

Mrs. Wildman took luncheon at Sage one day and reported it very satisfactory indeed, both in quality and quantity. The Porto Ricans are subsisted in the same dining room with several hundred regular summer school women teachers,

but have three tables reserved for them. The service at Sage is excellent, and they have served meals in rooms at all times when teachers were indisposed, without extra charge. This kindness appears to have been abused in one or two cases, and if the time were not so short before leaving I should question the wisdom of continuing the custom.

The men, prior to the potamaine poisoning, were being fed by a Mr. Zimmer, but after that occurred evidence was secured to the effect that he had been buying meat no one else would use, and they were moved to the Cascadilla Dining Hall, conducted by a Mrs. Apker, at the same rate. I took luncheon there one day, and while I do not believe the meals were as good as those served at Randall Hall, Harvard, no fault could be found. I had bean soup, baked bluefish, creamed potatoes, baked beans, beets, bread and butter, stewed prunes, cakes, and coffee. Dr. De Laguna, a member of the summer teaching corps, takes his meals there as a representative of the faculty.

SOCIAL FEATURES.

Dancing until 8.30 every evening, except Saturday and Sunday, is a feature of the social life. On Saturday evening they are allowed to continue until 12 o'clock. There are one or two musicales each week to which they are welcome, and one or two have been provided for their special benefit. These are held in Sage Chapel, a beautiful edifice, with an excellent pipe organ. Shortly after the arrival of teachers they were able to secure a \$2 excursion rate to Niagara Falls, in which all participated. They have been on a number of minor excursions to local points of interest, but an all-day trip is being planned for Saturday, July 30, which will consist of a trip along Lake Cayuga, 35 miles, on a boat especially chartered for the occasion. Their lunch will be furnished by the friends in and about the university, and they are expected to furnish something even a little better than their reputation calls for. A gigantic pig roast is anticipated, not only by the teachers but their friends, as a closing feature of the social side. The people in and about the university, including the regular summer school students, have shown a great interest in our teachers and contributed a great deal in little ways toward their entertainment. They have been extremely friendly with them and a great deal of good which will be accomplished at Cornell may be attributed to the perfect harmony that exists on all sides.

GENERAL APPEARANCE.

The change in the teachers in the matter of dress is quite marked, most of them having purchased American clothing and acquired American style to such an extent that it is difficult to distinguish them from Americans. They have discarded brilliant colors, and their general appearance on the street has improved wonderfully from an American point of view.

MISCELLANEOUS.

The impression created among the college and town people is excellent. The instructors are enthusiastic over their work, the teachers are interested in their classes, and the attendance is excellent. There has been little need for medical attendance and the expenses for same are not as high as supposed. The office is established in room 12, Morrill Hall, the administration building of the university, where Mr. Zimmerman is from 9 to 12 a. m. Here money is received on deposit for safe-keeping and paid out as required, and all other business transacted.

The interpreters are busy during classes, but free during the balance of the day. The section chiefs do not have much work to perform, neither do the chaperones.

The women teachers are required to be in their rooms at 10 p. m., and they are not permitted to be accompanied by men when out, unless two are together.

In general, everything is running smoothly, the teachers are much pleased with everything, and great good will result from their sojourn at Cornell.

Very respectfully,

J. R. WILDMAN,

Business Manager, Porto Rican Teachers' Summer School Expedition.

THE COMMISSIONER OF EDUCATION,

San Juan, P. R.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF THE COMMISSIONER,
San Juan, _____, ____.

A los maestros puertorriqueños.

ESTIMADOS AMIGOS: Cuando el verano pasado estuve en los Estados Unidos me decidí á dar los pasos necesarios para ver si era posible que la mayor parte de los maestros puertorriqueños, ya que no todos, pudiesen ir á aquella gran nación durante las vacaciones de 1904 con objeto de visitar algunas de las más importantes ciudades de la costa oriental, y asistir al mismo tiempo á los cursos de verano en algunos de los colegios ó universidades. Á este fin conferencié con varias de las personas que dirigen el movimiento educativo, encontrando que estaban dispuestos á conceder á nuestros maestros, con verdadera liberalidad, las facilidades que en cuestiones de enseñanza se le conceden á los maestros de los Estados de la Union en las diversas escuelas de verano establecidas en el Este. Resuelto este punto hube de ocuparme de una cuestión aún más importante, cual era la del traslado de tan gran número de personas y de los arreglos necesarios para el pago de su manutención y alojamiento, así como de los gastos incidentales que pudiesen ocurrir. Hablé entonces con influyentes miembros del Congreso y solicité del Presidente Roosevelt el uso de los transportes del ejército. Por indicación del Presidente se presentó al Congreso una resolución, que acaba de aprobar ese alto Cuerpo, por la cual se ordena al Secretario de la Guerra que se nos conceda transporte gratuito para seiscientos maestros puertorriqueños y para veinticinco personas que sirvan de intérpretes ó que atiendan á los trabajos de oficina que sean necesarios durante el viaje de ida y vuelta á los Estados Unidos, con la condicion de que por nuestra cuenta corran todos los demás gastos de viaje, incluyendo el pago de un dollar diario por cada persona que hay que pagar por las comidas en los transportes. Calculamos tomando en consideración todo lo expuesto, que se necesitarán de cincuenta á sesenta mil dollars para cubrir los gastos de los seiscientos maestros que como máximo fijó el Congreso, y como quiera que la Asamblea Legislativa de Puerto Rico acaba de aprobar el plan general de este viaje, pero ni se ha votado ni se puede votar la cantidad para él necesaria, será preciso obtener la cantidad señalada por medio de suscripciones entre los maestros mismos y entre personas pudientes de los Estados Unidos que tengan interés de que los maestros puertorriqueños visiten aquella nación y estudien en sus colegios. Ésta es una gran empresa, pero yo he de hacer cuanto pueda por llevarla á cabo, contando con la eficaz cooperación de las personas á quienes dirijo esta carta.

Yo presentaré este asunto ante los ciudadanos de los Estados Unidos que mayor interés se toman por el progreso de la comunidad, del mismo modo que lo presento ante vosotros, con tanta confianza en cuanto á la generosidad de aquellos como la tengo de recibir vuestra valiosa cooperación. Innecesario creo extenderme en consideraciones acerca de las ventajas que ha de proporcionar este viaje á los que se decidan á hacerlo. Que hayáis estado ó que no hayáis estado en los Estados Unidos, ello es que la estancia de cinco ó seis semanas en aquel país, la oportunidad de ver una ó más de las grandes ciudades y algunos de los sitios de mayor interés histórico, así como la de permanecer durante varias semanas dentro de la atmósfera de un colegio ó universidad americanos, habrá de significar mucho, no sólo por la adquisición de mayor número de conocimientos personales, sino también por el de los profesionales que todo maestro necesita. Allí tendréis la oportunidad de ampliar vuestro conocimiento en el idioma inglés; de ponerlos en contacto con vuestros compañeros de profesión, los maestros americanos; de apreciar el interés que por vosotros y por vuestros trabajos se toman ellos, así como de estudiar la marcha que en la enseñanza siguen y de aprender algo de los métodos que emplean. Este viaje ha de estrechar más las relaciones entre vosotros y los maestros de los Estados Unidos y de establecer el sentimiento de confraternidad que debe reinar entre los que ejercen la noble profesión del magisterio, para la cual no existen límites de lengua ó de nacionalidad.

En la actualidad no puedo presentar un programa definitivo. Nuestro primer deber es conseguir los fondos necesarios y entonces podremos más fácilmente detallar nuestro plan, del cual os iremos dando cuenta, y trazar al fin el programa definitivo, que en sus líneas generales será como sigue:

Los transportes tocarán en San Juan y Ponce, y, si es posible, en algunos otros puertos hacia el primero de Julio, partiendo para Boston, New York, ó Philadelphia con objeto de llegar á dichas ciudades en tiempo oportuno para entrar en unas de las escuelas en aquellas ciudades establecidas. Estas escuelas tienen

por lo general un curso de cinco ó seis semanas que empieza en los primeros días de Julio y termina hacia mediados de Agosto. En esas escuelas ó en residencias particulares tendréis alojamiento, en donde se espera que permanezcáis durante ese período de cinco ó seis semanas, asistiendo á las clases que para vosotros especialmente serán dispuestas.

En ese curso de verano estudiaréis Inglés, y además Geografía, Historia de los Estados Unidos, Aritmética, Pedagogía, Estudio de la Naturaleza, y al mismo tiempo los métodos de enseñar esas asignaturas en las escuelas elementales. Aunque las escuelas públicas de los centros á donde vayáis no estarán abiertas por estar entonces en vacaciones, podréis visitar los edificios escolares y tal vez asistir á algunas de las escuelas públicas que tengan un cursillo de verano. También tendréis la oportunidad de visitar los lugares históricos que estén cercanos á la ciudad en donde seáis instalados. Al terminar el curso de verano se tratará de hacer que los trasportes os conduzcan á algunos otros puntos, de modo que cada maestro pueda ver por lo menos las ciudades de Boston, New York, Philadelphia, y Washington, que son los principales centros históricos de la costa Este. El viaje de regreso a Puerto Rico se hará de modo que estéis en San Juan ó en algun otro punto de la isla antes del primero de Septiembre. Es decir, que estaréis ausentes unos dos meses, tiempo durante el cual todos los gastos de viaje, de matrícula, de manutención y de alojamiento serán pagados de fondo especial á que se ha hecho referencia. Vosotros, por vuestra parte, tendréis que pagar los gastos de viaje en Puerto Rico, desde el sitio en que os encontréis hasta el puerto de embarque, y, al regresar, desde el punto á que arribe el barco hasta vuestras casas. Asimismo tendréis que pagar todos vuestros gastos personales, esto es, los vestidos necesarios, lavado, billetes de carros eléctricos ó tranvías, etc., cuadernos y libros de texto que podáis necesitar, y cualquier otro gasto extraordinario en que podáis incurrir. Siendo económicos la suma de veinte y cinco dollars será suficiente á cubrir todos estos gastos mientras estuviérais ausentes de la isla, á no ser que os enfermaseis y tuvieseis que pagar el médico ó que atender á cualquier otro gasto imprevisto. Además de esto deberéis calcular lo que costaros puedan los gastos de viaje en Puerto Rico á que ya hemos hecho referencia.

Probablemente irán algunas señoras para atender á las maestras. Los maestros en general serán divididos en grupos de 50 como máximo, al cuidado de los cuales estará algún Inspector de Escuelas ú otra persona que conozca el español y el inglés, quienes los atenderán y les servirán de consejeros en caso de necesidad, para lo cual residirán en el mismo sitio que á aquellos se designe. Es probable que los 600 maestros no puedan asistir á uno solo de los centros de Instrucción, así es que seguramente serán asignados 150 ó 200 á cada uno de los tres ó cuatro colegios ó universidades que oportunamente se designarán; y es tambien muy posible que, si con anticipación lo solicitan, podamos hacer los arreglos necesarios para que los maestros que deseen estar juntos, puedan ser destinados al mismo centro educativo.

Volviendo á la importante cuestión de cuya solución depende el que se lleve ó no se lleve á cabo este viaje, he de referirme de nuevo al fondo especial de 50 ó 60 mil dollars que se necesita, y antes que nada he de preguntar si, en el caso de que V. sea elegido y se le invita á formar parte de la expedición, está dispuesto á contribuir con el sueldo de un mes para el antedicho fondo. Hasta la terminación del año escolar tenemos que pagarle á V. el sueldo de cuatro meses y una semana, suponiendo que V. siga enseñando hasta el mes de Junio, y esa suma se le pagará en las fechas siguientes:

	Semanas.
Marzo 18 -----	4
Abril 22 -----	4
Mayo 20 -----	4
Junio 24 -----	5

El maestro que desee ir á los Estados Unidos y contribuir con ese objeto al fondo especial, se servirá devolvérnos por correo, á la mayor brevedad posible, la adjunta orden autorizándonos para retener y transferir al fondo especial el 25 por 100 de sus sueldos mensuales al tiempo de hacer cada uno de los cuatro pagos antedichos. El envío de esa orden significará que el maestro contribuye al fondo común con siete dollars y medio mensuales durante cuatro meses, si desempeña una escuela rural y recibe 30 dollars mensuales; que contribuye con doce dollars y medio mensuales durante cuatro meses, si desempeña una escuela graduada y recibe 50 dollars al mes; que contribuye con 15 dollars mensuales durante cuatro meses, si es un maestro graduado que sirve como "acting prin-

cial" y recibe 60 dollars al mes, y que contribuye con diez y ocho dollars y medio mensuales durante cuatro meses si es V. un maestro principal que recibe 75 dollars al mes. Ese dinero será depositado al crédito del maestro en el fondo general, y si por cualquiera razón no es de los elegidos ó si la expedición no se puede llevar á cabo por ser imposible el conseguir los fondos necesarios en los Estados Unidos, la suma total con que contribuye le será devuelta de una vez hacia el primero de Julio. De igual modo también si la cantidad obtenida por subscripción en los Estados Unidos es suficientemente grande ó si los gastos de la expedición son menores de lo que pensamos, de modo que quede algun saldo á nuestro favor después de pagar todos los gastos en que se haya incurrido, la cantidad sobrante será distribuida entre los maestros puertorriqueños que contribuyeron para el fondo común, en proporción á la suma que adelantaron.

No debe olvidarse que sólo 600 maestros, de los 1200 que hay en Puerto Rico, podrán hacer el viaje, y que en el número de los elegidos no podrán entrar aquellos que no sean puertorriqueños. Al elegir los maestros que han de formar parte de la expedición se atenderá escrupulosamente al orden en que sean recibidas las solicitudes hechas en la forma en blanco que adjunto acompañamos, y se dará preferencia á los que crean que por sus conocimientos en inglés están en condiciones de aprovechar y de seguir sin dificultad las conversaciones sencillas ó las conferencias que se les dé en las clases.

Téngase muy presente que en el adjunto impreso hay que dar los informes necesarios acerca e estos puntos, y que dicho informe debe ser devuelto antes del 14 del mes en curso si el maestro que lo recibe desea ir á los Estados Unidos y quiere que el primer descuento se le haga en el cheque de este mes, 1 cual deberá salir e aquí el día 18.

Aunque las clases á que asistan los maestros en las escuelas de verano serán dadas en inglés, se tratará, sin embargo, de dar algunas en español, ó, por lo menos, de darlas por medio de intérpretes, para que de ellas puedan beneficiarse los que no tengan suficiente conocimiento del inglés.

Téngase en cuenta que este viaje no tiene otro objeto ni hay en él otro interés que el interés mismo de los maestros, es decir, el de que los maestros tengan la oportunidad de visitar á los Estados Unidos y de obtener algunos beneficios en sus estudios y en su experiencia personal. Esto significa algunos sacrificios por parte de ellos pero también significa mucho para su progreso y para su porvenir. Demás estar decir que ningún maestro tiene la obligación de hacer el viaje ó de contribuir para el fondo común.

Tanto lo uno como lo otro es completamente voluntario. No es preciso decir, sin embargo, las grandes ventajas que á costo de un pequeño sacrificio se le ofrecen á los maestros. En primer término podrán hacer el viaje por la tercera parte de lo que les costaría cualquier otro, aun cuando éste fuera hecho bajo las circunstancias más favorables, y en segundo lugar, de este modo podrán aprovechar las lecciones de buenos maestros y educadores de los Estados Unidos por una pequeña cantidad, cosa que no podrán nunca obtener los que aisladamente hagan el viaje y procuren un maestro siquiera regular.

Confianto en que podremos realizar este viaje y que nuestras indicaciones serán recibidas en la misma forma que las hacemos, esto es, atendiendo al interés y beneficio personal de los maestros mismos así como al progreso, bienestar y reputación de nuestro entusiasta é inteligente cuerpo de profesores de Puerto Rico de cuyas aspiraciones y fiel devoción á sus deberes yo me enorgullezco, quedo de Vds. con la mayor consideración.

SAMUEL McCUNE LINDSAY,
Comisionado de Educación.

DEPARTMENT OF EDUCATION OF PORTO RICO,
OFFICE OF THE COMMISSIONER,
San Juan, Marzo — de 1904.

SEÑOR: Por la presente solicito que se me designe para ir á los Estados Unidos hacia el primero de Julio próximo con el fin de estudiar en algun Colegio ó Escuela normal de verano, de acuerdo con el plan general trazado en la carta circular que con fecha tres de Marzo corriente se servió Vd. remitirme, y recibo de la cual le acuso. Asimismo solicito y autorizo á Vd. para retener el 25 por ciento de mi sueldo mensual que, como maestro (1) — actualmente sirviendo en la Municipalidad de — es el de § (2) — mensuales, y acreditar aquella cantidad al fondo especial conocido con el nombre de "Fondo para Escuelas de Verano de los Maestros Puertorriqueños" en las fechas designadas

para el pago de mi sueldo durante los cuatro meses que faltan del año escolar, esto es, durante los meses de Marzo, Abril, Mayo y Junio, de modo que al terminar ese período de cuatro meses tenga depositada la cantidad de \$—— que es la correspondiente á un mes de trabajo en el corriente año escolar.

Convengo en firmar los comprobantes por la cantidad total de mi sueldo y le ruego me remita mi cheque, después de haber deducido el 25 por ciento, por el resto de la cantidad que debía recibir, á la terminación de cada mes escolar. Entiéndase, sin embargo, que en el caso de que el proyectado viaje á los Estados Unidos no se lleve á efecto, ó de que yo no sea elegido para tomar parte en él, me será devuelta hacia el primero de Julio la cantidad total deducida de mi sueldo y depositada para el fondo especial.

Deseo hacer constar que (3) —— he estado en los Estados Unidos y que mi conocimiento del idioma inglés (4) —— es bastante para poder seguir un curso elemental de conferencias ó de conversaciones sencillas en dicho idioma.

Deseo hacer constar del mismo modo que soy enteramente responsable de todas mis gastos de viaje desde el sitio en que me encuentro hasta el puerto de embarque y, al regreso de los Estados Unidos, desde el puerto de embarque hasta mi casa. Y asimismo me hago responsable de todos los gastos personales en que pueda incurrir durante este viaje, como la adquisición de vestidos, lavado, billetes de tranvías, carros eléctricos, etc., libros de texto, cuadernos, materiales de escuela, é igualmente de todos los gastos de menor importancia; entendiéndose que del fondo especial serán pagados mis gastos de viaje desde Puerto Rico hasta los Estados Unidos y viceversa, y también mi manutención y alojamiento, tanto en los transports como en los Estados Unidos, y la matrícula para el curso de verano.

De Vd. atentamente,

La anterior solicitud queda aprobada. El oficial pagador del Departamento de Educación queda autorizado para proceder á hacer las deducciones correspondientes en el sueldo del maestro, acreditando la cantidad deducida al fondo especial conocido con el nombre de "Fondo para Escuelas de Verano de los Maestros Puertorriqueños."

Fecha ——.

Comisionado de Educación.

NOTAS.—Insértese aquí la palabra "Rural," "Graduado," "Principal," ó el título del puesto que actualmente desempeña.

(2) Insértese aquí la cantidad á que asciende su sueldo mensual.

(3) Insértese aquí la palabra "No," si Vd. no ha estado en los Estados Unidos.

(4) Insértese aquí la palabra "No," si Vd. no cree que pueda serle de provecho la instrucción dada en idioma inglés. En caso contrario deje el espacio en blanco.

COMISIONADO DE EDUCACIÓN,

San Juan, P. R.

HARVARD UNIVERSITY PORTO RICAN SUMMER SCHOOL.

EXCURSIONS.

A number of excursions to places of interest in the neighborhood of Cambridge have been arranged for members of the Porto Rican summer school, including three excursions for Saturdays, beginning July 16, and three excursions for Wednesdays, beginning July 20. For these excursions the members of the school will be divided into three groups:

The first group will contain sections 1 and 2.

The second group will contain sections 3 and 4.

The third group will contain sections 5, 6, and 10.

The excursions will be taken by each group in rotation, so that every member of the school will be able to take all the excursions.

The programme printed below gives the dates and the excursions assigned to each group. All the excursions except that to the Cambridge schools will start from Harvard square in special electric cars at 2 p. m. The excursions to the Cambridge schools will start from the front of the Fogg Museum at 2.30 p. m. Each excursion will return to Cambridge in time for supper at Randall Hall. Phillips Brooks House will be open on each excursion day until 7.15 p. m.

TICKETS.

Tickets for each excursion must be obtained from the section chiefs not later than the day before the excursion is to take place. The section chiefs will be in 15 University Hall from 1 to 2.30 p. m. on the day before each excursion. No tickets will be required for the visit to the Cambridge schools. The price of tickets for the Saturday excursions will be 25 cents each; for the Wednesday excursions to Boston and to the Cambridge printing houses, 10 cents each. Tickets will be required for the visit to the Boston schools on Thursday, July 21, but may be obtained free of charge from the section chiefs.

Notice of postponement on account of weather will be posted at University Hall and Randall Hall.

Programme of excursions.

[All electric-car excursions, except that of July 21, leave Harvard square at 2 p. m.]

Date.	Sections 1 and 2.	Sections 3 and 4.	Sections 5, 6, and 10.
Saturday, July 16	Norumbega Park	Blue Hill.....	Lexington and Concord.
Wednesday, July 20..	Boston Public Library and Art Museum.	Cambridge printing houses.	Cambridge public schools.
Thursday, July 21....	All sections leave Harvard square at 9 a. m. for visit to vacation schools and Mechanic Arts High School of Boston.		
Saturday, July 23	Bill Hill.....	Lexington and Con- cord.	Norumbega Park.
Wednesday, July 27..	Cambridge printing houses.	Cambridge public schools.	Boston Public Library and Art Museum.
Saturday, July 30	Lexington and Con- cord.	Norumbega Park	Blue Hill.
Wednesday, Aug. 3...	Cambridge public schools.	Boston Public Library and Art Museum.	Cambridge printing houses.

DESCRIPTION OF EXCURSIONS.

Lexington and Concord.—Starting from Harvard Square the party will follow Massachusetts avenue, passing in succession North Cambridge, Arlington, Arlington Heights, East Lexington, and Lexington, and arriving at Concord after a ride of about an hour and a half. The route from Cambridge to Lexington will be that of the British retreat on April 19, 1775, and many tablets marking points of historical interest will be seen along the way. About one hour and a quarter will be spent in Concord, where the battle ground and other points of historic interest will be visited, after which the party will retrace their way to Cambridge.

Blue Hill.—The party will go from Harvard Square to Boston by way of Massachusetts avenue and Harvard Bridge, thence through Roxbury and Dorchester, both thickly settled residential districts of Boston, to Franklin Park, whence the line runs through comparatively open country along Blue Hill avenue to the Blue Hill Reservation, a part of the system of metropolitan parks which surrounds the city of Boston. A twenty minutes' walk from the stopping place brings one to the top of Blue Hill, where a meteorological observatory is maintained. This observatory is famous for the investigations conducted by the director and his assistants by means of kites, which have been flown as high as 15,807 feet above the sea level. The kites are controlled by machinery and carry delicate meteorological instruments. About an hour and a half will be allowed for the walk up Blue Hill and back to the cars, after which the party will return to Cambridge.

Norumbega Park.—The party will go from Harvard Square by Massachusetts avenue and Harvard Bridge to Beacon street, Boston, thence along Beacon street through the suburban districts of Brookline, Chestnut Hill, and Newton to Norumbega Park at Auburndale. An hour and a quarter will be allowed for the stay at Norumbega Park, and the party will return to Boston by a slightly different route, following Commonwealth avenue on the return journey.

Boston Public Library, Art Museum, and Youth's Companion office.—The party will go by special electric cars to the office of the Youth's Companion, where the various offices and manufacturing processes will be on view; thence on foot, a five minutes' walk, to the Museum of Fine Arts in Copley Square, where the large collections of paintings, sculpture, and other works of art will be visited.

From the Museum of Fine Arts the party will cross Copley Square to the Boston Public Library, the principal objects of interest in which are the main stairway, the mural decorations of Puvis de Chavanne, Abbey, and Sargent, the reading rooms, and the room where the loaning of books is conducted. From the public library the members of the party will find their own way back to Cambridge, taking any car for Harvard Square.

Cambridge printing houses.—Through the courtesy of Messrs. H. O. Houghton & Co., of the Riverside Press, and Messrs. Ginn & Co., of the Athenæum Press, these two large printing establishments will be open to the inspection of the Porto Rican teachers. The party will take special cars at Harvard Square, one car going to the Riverside Press and the other to the Athenæum Press. Members of both parties will find their own way back to Harvard Square without difficulty. The party visiting the Riverside Press can return either on foot by Western avenue and Putnam avenue, or by taking a car toward Boston as far as Brookline street and transferring to a Harvard Square car. Harvard Square cars pass the Athenæum Press at short intervals.

Cambridge public schools.—Starting from the front of the Fogg Museum at 2.30 the party will take the five minutes' walk to the group of public school buildings which surround the Cambridge Public Library. The tour of inspection will include the English high school, the manual training school, and possibly other buildings. All who feel so disposed will then be conducted by the ordinary electric car service from Harvard Square via Massachusetts avenue to Linnean street, where the Peabody Grammar School, one of the best equipped grammar schools in the United States, will be inspected. The ladies of the party will find it only a short walk from the Peabody School to their rooms, and all the members of the party may like to visit the botanic garden of the university, which is situated close by, at the corner of Linnean and Raymond streets.

EXTRACT FROM REPORT OF MR. JEROME D. GREENE TO THE PRESIDENT OF HARVARD UNIVERSITY ON THE PORTO RICAN HARVARD SUMMER SCHOOL.

By the courtesy of the Boston board of health, the transport was boarded July 2 at the entrance of Boston Harbor by a reception committee having charge of the arrangements for baggage, transportation, and the assignment of lodgings. To facilitate these arrangements a number was assigned to each person and the members of the expedition were divided into sections of about 25, each with a leader. The members of each group were, so far as practicable, assigned to lodgings in neighboring houses, the men for the most part in one district to the south and east of the college grounds and the women in another district to the north of the college grounds. The assignment to lodgings and the corresponding numbering of each piece of baggage were attended to on board ship; and without further delay or difficulty the party was conveyed to Cambridge in special electric cars, the cars being taken to points as near as possible to the destination of the several groups. The housing of the entire party having been practically completed before dark, the teachers were enabled to assemble at Randall Hall in season for supper. Arrangements had been made for providing three meals a day for all members of the expedition at the summer school restaurant in Randall Hall during the whole of their stay in Cambridge at a charge of \$3 a week for each person. Lodgings had been secured at varying prices, averaging less than \$2 a week for each person. A printed form of lease was used for each house in which lodgings were taken. (See Appendix IV.) The services of the medical visitor of the university were made available for members of the expedition at the expense of the expedition.

It was decided that the session should be devoted primarily to instruction in English. For this purpose the pupils were divided into three grades—elementary, intermediate, and advanced—based on their previous acquisitions in the English language. A provisional division into grades had been made by the section chiefs before the arrival in Cambridge; and these grades were subdivided into classes, ranging in number from 16 to 38 each, the men and the women being taught in separate classes. This arrangement produced two elementary and two intermediate classes, and one advanced class of women; three elementary and three intermediate classes, and one advanced class of men. The provisional assignment to grades and classes was corrected after the instructors had had an opportunity to form an estimate of the abilities of each pupil. After the first week it was decided to form a fourth elementary

class for the men for the benefit of 12 of the most backward pupils. The names of the English instructors will be found in the appendix. (Appendix I.)

A preliminary conference of the English instructors was held on the morning of July 4 in order that the methods and scope of their work might be discussed. Each instructor was left free to determine the method to be employed in his own work; and the selection of text-books was also left in his hands. A list of the text-books will be found in the appendix. At first the instruction in English was assigned to two prescribed morning periods of three-quarters of an hour each, and one voluntary afternoon period of an hour and a half. For the afternoon work the classes met in pairs, under the charge of one teacher. As the Porto Ricans exhibited a reluctance to engage in any serious work in the afternoon, the voluntary afternoon exercise was abandoned at the end of the first three weeks, and it was arranged that in its place each teacher should take his class on occasional short excursions, which would furnish an opportunity for conversation in English as well as for sight-seeing. Though no one method was prescribed for the work in English, several features were common to the work of all the classes. After the first few days the classes were conducted almost wholly in English. In addition to the varying exercises in translation and grammar set by the different text-books, writing from dictation, conversation on familiar topics, reading of English prose, with comments and explanations, committing passages of prose and poetry to memory, and daily or weekly compositions in English formed part of the work of nearly every class. The written work was carefully corrected by the teachers and returned to the pupils, the corrected work being in many cases rewritten.

Any general characterization of the work in English is rendered difficult by the fact that the pupils exhibited wide difference in their previous acquisitions, their quickness in learning, and their diligence. The teachers found their classes interesting and responsive, and in every class there were a number of intelligent and zealous pupils who amply repaid every effort made for them. On the other hand, there were persistent absentees and laggards in nearly every class. Of the pupils as a whole it may be said that much of the strangeness of the English tongue yielded perceptibly to their five weeks' life and study in an English-speaking community, so that they not only acquired more English, but could make freer use of what they had. This overcoming of the strangeness of the tongue meant for the brightest and most zealous pupils the acquisition of a very considerable facility in conversation.

Nine courses of lectures were provided, the courses following each other in succession, and one lecture being given each morning. The subjects of the lectures and the names of the lecturers will be found in the appendix. Some of the lectures were given in Spanish and others in English, and of those given in English some were interpreted into Spanish and some were given without an interpreter. In order to make the English lectures more easily understood, a syllabus of each lecture was printed. The syllabuses were usually printed in Spanish, but some were printed in English and were used as exercises in English in preparation for the lectures. The lectures were poorly attended, and several, which had to be assigned to an afternoon hour on account of the shortening of the session from six to five weeks, had to be abandoned on account of the complete unanimity with which the Porto Ricans absented themselves.

Many of the afternoons during the session were devoted to excursions to places of interest in the vicinity of Cambridge, most of the excursions being to places which could easily be reached by pleasant electric-car rides. A list of the excursions will be found in the appendix. The expenses of the excursions were met in part by the Porto Ricans themselves, tickets being sold for each excursion at a price representing about one-half the cost for each person. The remainder of the cost was met by the expedition. Some of the most enjoyable and profitable excursions, however, were due to the generosity of private individuals, as noted in the appendix. (Appendix III.)

The following gentlemen may fittingly receive some acknowledgment of their services to the expedition:

Maj. Gen. W. A. Bancroft, president of the Boston Elevated Railway, for discount of 25 per cent on all charges for special car service and for the courtesy and precision with which the many demands for the service of his company were met by his subordinates.

Hon. W. L. Douglas, for permitting an inspection of his factory.

General Manager Brush, of the Newton and Boston Street Railway. Same as for General Bancroft.

Mr. Drake, of the Youth's Companion, for hospitality on three Wednesdays.
Messrs. Ginn & Co., for hospitality on three Wednesdays.

J. Montgomery Sears, esq. (Sears Building, Boston), for his generous provision of an excursion to his estate at Southborough and for personally taking the Porto Rican men all over his farm.

Mr. Burton L. Read, 12 Howland street, Cambridge, for his services in arranging and carrying out the three visits to the Cambridge public schools and providing refreshments at these visits.

Mr. Francis Cogswell, superintendent of schools of Cambridge, for arranging the above-mentioned visits.

Mr. James J. Storrow, for providing the excursion to the Boston Vacation Schools.

APPENDIX I.—*Porto Rican summer school officers of instruction and management.*

In charge of instruction and excursions in the absence of the president.—Jerome Davis Greene.

Teachers of English.—Elementary classes: Harriet Miriam Cutler, Mary Theresa Loughlin, Alphonse Marin La Meslee, Frederic William Morrison, Andrew Paul Raggio.

Intermediate classes: Lillian Estelle Clark, Nellie Isabel Simpson, Antonio Alfredo Capotosto, Albert Leslie Pitcher, Joseph Smith.

Advanced classes: Elizabeth Forbes, Peter Hair Goldsmith.

Lecturers.—Frederic M. Noa, six lectures on Cuba and South America; Peter H. Goldsmith, six lectures on Mexico and the Southern States; William MacDonald, three lectures on American history; Eugene Abraham Darling, three lectures on hygiene; William W. Ellsworth, six lectures on the American Revolution; Philip Sidney Smith, six lectures on American geography; George I. Aldrich, four lectures on the American educational system.

In charge of transportation, lodging, and baggage arrangements on arrival.—Howard Lane Blackwell, Harvey Nathaniel Davis, Lewis Wendell Hackett.

APPENDIX II.—*Text-books and readers.*

Class.	Teacher.	Grade.	Books.
1	Forbes	Advanced	Arnold and Kittredge's Mother Tongue II; Goldsmith's El Idioma Ingles; Irving's Sketch Book.
2	Simpson	Intermediate	Arnold and Kittredge's Mother Tongue II; Irving's Sketch Book.
3	Clark .....	.....do	The same as in Class 2.
4	Cutler	Elementary	Arnold and Kittredge's Mother Tongue I; Stories from Hawthorne.
5	Loughlin .....	.....do	Arnold and Kittredge's Mother Tongue I; Dickens's Christmas Carol.
6	Goldsmith	Advanced	The same as in Class 1.
7	Pitcher	Intermediate	Goldsmith's El Idioma Ingles, Book III; De Foe's Robinson Crusoe (abridged).
8	Smith .....	.....do	Arnold and Kittredge's Mother Tongue II; Ybarra's English-Spanish Method.
9	Capotosto .....	.....do	Carrington's Beacon Lights of Patriotism.
10	Morrison	Elementary	Ybarra's English-Spanish Method.
11	La Meslee .....	.....do	Do.
12	Raggio .....	.....do	Goldsmith El Idioma Ingles, Books I and III.
13	Sawyer .....	.....do	Arnold and Kittredge's Mother Tongue I.

APPENDIX III.—*Excursions Porto Rican summer school, 1904.*

[Tickets for Wednesday and Saturday excursions sold through section chief at prices indicated below.]

Saturday, July 16.—Norumbega Park, Concord, Blue Hill (25 cents).

Wednesday, July 20.—Youth's Companion office, Boston Museum of Fine Arts; Riverside Press, Athenæum Press; Cambridge public school buildings (10 cents).

Thursday, July 21.—Mechanic arts high school and vacation schools, Boston (gift of Mr. J. J. Storrow).

Wednesday, July 27.—Youth's Companion office, Museum of Fine Arts, public library, Boston; Athenæum Press; Cambridge public school buildings (10 cents).

Thursday, July 28.—W. L. Douglas shoe factory, Brockton (for men) (gift of Mr. A. F. Estabrook); Wellesley College (for the women) (gift of Dr. and Mrs. S. M. Lindsay).

Saturday, July 30.—Norumbega Park, Concord (25 cents).

Wednesday, August 3.—Youth's Companion office, Museum of Fine Arts, public library, Boston, Athenæum Press; Cambridge public school buildings (10 cents).

Friday, August 5.—Estate of Mr. J. Montgomery Sears, Southboro (for the men), gift of Mr. Sears.

LABORATORY VISITS (FOR TEACHERS ESPECIALLY INTERESTED IN SCIENCE).

Tuesday, July 19.—Zoological laboratory.

Tuesday, July 26.—Jefferson physical laboratory.

Friday, July 29.—Chemical laboratory.

Thursday, August 4.—Astronomical observatory.

APPENDIX IV.—*Porto Rican school lease.*

CAMBRIDGE, MASS., *June —, 1904.*

I hereby agree to lease to Harvard University — furnished rooms, described below, for — Spanish, or colored, Porto Rican women or men teachers for about six weeks, beginning July 2, or on their arrival, if delayed, and ending about August 15, or a day or two earlier or later, for the sum of — per person per week, and fractions of a week proportionally.

I agree to care for these rooms satisfactorily and properly, to furnish clean linen and towels, to supply good lamps or gas, and to offer the use of bathroom and of a parlor at any time.

I further agree that I will take no $\left\{ \begin{array}{l} \text{men} \\ \text{women} \end{array} \right\}$ as lodgers during this time.

This lease is subject to termination if any part of the above agreement be not kept or if the city inspector of plumbing shall disapprove the sanitary conditions.

Description of rooms.

Floor.	Exposure of windows.	Number of beds.	Number of occupants.

(*Street and number.*)

REPORT OF DR. CHARLES DE GARMO, DEAN OF FACULTY OF SUMMER SESSION OF CORNELL UNIVERSITY, TO THE PRESIDENT OF THE UNIVERSITY, ON THE WORK OF THE PORTO RICAN TEACHERS :

An event of far more than local interest was the attendance this summer at Cornell of a body of Porto Rican teachers, numbering some 153, including their supervisors and inspectors. They come first of all to meet face to face, and to understand at first hand, the people with whom they are now associated, and upon whose good will and cooperation the future welfare of the island in large measure depends. Thus far the few Americans they had known were far from home and acting in isolated capacity; but by their stay in Ithaca and by their extended journeys about the country the Porto Ricans had some opportunity to see us at home and in large numbers.

When one considers the path of the whole body of native teachers on the island came to Cornell and Harvard this summer, and that what they learned, experienced, and felt will be rehearsed in thousands of homes, and will powerfully influence the teaching in nearly all the schools, it can be predicted that the sacrifices of the teachers themselves and the self-forgetful and effective labors of Commissioner Lindsay will meet an abundant and wholesome reward in the uplift for good and the increased hopefulness for the future that will be felt throughout the island.

Secondarily, the Porto Rican teachers came among us to learn more of the English language and to comprehend better the ideals and practices of the American public schools. Thanks to the skillful efforts of Doctor de Laguna and his band of faithful assistants, much advance was made by the Porto Rican teachers in the mastery of English. Happily for this purpose Doctor de Laguna has such knowledge of Spanish that he was able at once to understand the Porto Rican's difficulties and to adopt the most effective methods of overcoming them.

Through the cooperation of Supt. F. D. Boynton and the teachers of the East Hill School, Principal Burks was able not only to explain the principles and details of American teaching, but also to have classes of children taught before the visitors.

Dr. Charles A. McMurry gave most helpful and inspiring lessons upon nature study and the more elementary types of American history stories.

I append reports from Doctor de Laguna, Principal Burks, and Doctor McMurry, which will still further elucidate what was done for the benefit of the Porto Rican teachers:

THE DEAN OF THE FACULTY OF THE SUMMER SESSION:

Instruction in English occupied ten out of the seventeen hours prescribed to the visiting Porto Ricans. Four hours a week were given to drill in pronunciation, and six to lectures on the use of literature in the elementary school and to critical reading of children's classics.

For the exercises in pronunciation the class was divided into squads of 16. About one-half the time was spent in reading and conversation and half in a systematic study of the elementary sounds and their various modes of representation. The guide to pronunciation in Webster's Dictionary was closely followed and Webster's diacritical marks were explained, in order that the pupils might be enabled to make intelligent use of this dictionary in their future study of English words.

The work in literature was based on the first three volumes of Norton's Heart of Oak Series, a sufficient number of copies of which were furnished by the insular department of education. The lectures discussed the value of pure literature in the elementary school and the material and methods proper to the beginnings of literary education. In the readings were included the best of the English nursery rhymes, some important fables, typical folk tales from English, French, and German sources, and a few art tales of Southey and Andersen.

What benefit the visitors may have derived from this latter portion of the work it is hard to estimate. They claimed to be able, for the most part, to follow the lecturer easily, and expressed great interest and pleasure in the course. The improvement in punctuation was very marked, indeed, and testified clearly to the earnest endeavors of those who had the exercises in charge.

Respectfully submitted.

THEODORE DE LAGUNA.

THE DEAN OF THE FACULTY OF THE SUMMER SESSION:

I have the honor to report upon the course in methods of primary instruction which was assigned to me in the programme of work for the Porto Rican teachers attending the summer session of the university.

The subjects considered in this course were reading, composition, arithmetic, and school excursions. My purpose was to illustrate concretely, through these subjects, some of the more important and vital principles that characterize the best American procedure in teaching. The aim was essentially practical, the scope necessarily very limited, and the method as simple, direct, and objective as circumstances would allow.

Three times each week recitations were conducted with classes of children by teachers from the public schools of Ithaca in the presence of the entire body of Porto Rican teachers. The classes utilized for this purpose were made up of children attending a vacation school of Ithaca, and the work presented for obser-

vation was, in large measure, the regular work of the respective grades. Notwithstanding the abnormal conditions under which the recitations were held, the children were remarkably free from restraint or embarrassment. Although it was impossible to avoid all of the disadvantages incident to "exhibition" work, actual class-room conditions were, in a fair measure, approximated.

After each of the illustrative recitations I undertook to discuss the most conspicuous principles of method involved. My constant effort was to keep clearly before the minds of the teachers a few simple, essential ideas of method without urging any detailed plan of procedure as necessarily applicable to all conditions or to the conditions prevailing in Porto Rico. By suggesting alternative devices and plans, and in other ways I attempted to emphasize the idea that practice in teaching can not reasonably be determined by mechanical rules, though it may be based upon elastic principles of general value. Toward the end of the course a few of these general principles were suggested and concisely formulated. A summary of the discussions was made, translated into Spanish, and, in type-written form, distributed among the teachers. This summary served as the topic for a final conference.

The Porto Rican teachers made many requests for direct and detailed application to their own special problems of the principles touched upon in the various discussions. To meet this demand a series of supplementary conferences was arranged and conducted, in the Spanish language, by several of the district school superintendents of Porto Rico. The free and spirited discussions in these conferences contributed materially to the value of the regular work of the course.

The teachers showed increasing power to follow the discussions as carried on in English. It was necessary, however, to depend very largely upon an interpreter to summarize the discussions and frequently to give complete translations during the progress of the discussions.

Through the courtesy of the superintendent of schools of Ithaca the teachers were allowed to visit the East Hill School during its morning sessions. Most of the teachers availed themselves of this opportunity, provision being made for a group of ten to visit the school each morning under a competent leader. The direct observation of an American school of excellent type in actual operation under normal conditions must have been of great value in correcting and amplifying the impressions received through the illustrative lessons. The teachers in a body visited the high school building, where they were given an opportunity to make a thorough inspection of its architectural plan, its ample equipment of furniture and apparatus, and its artistic interior decorations. Several of these excursions were discussed in detail as types of excursions possible for classes of children.

The Porto Rican teachers were uniformly attentive and eager, their officers courteous and efficient, and the authorities of the university always ready to render assistance in every possible way. To the cooperation of all these is due, in very large measure, whatever success attended the work of this course.

Respectfully submitted.

JESSE D. BURKS.

THE DEAN OF THE FACULTY OF THE SUMMER SESSION :

I have the pleasure of announcing to you the satisfactory completion of one course with the 150 Porto Ricans during our recent summer session. The lessons offered this class of 150 students were nature study and stories of American history.

The attendance was punctual and good, and the close attention and interest on their part very satisfactory. An excellent interpreter assisted greatly in explaining things to those not well versed in English.

Their ability to understand English developed perceptibly during the term, and their general acquaintance with American ideas and modes of teaching must prove of much value to them in their work as teachers.

Their attitude of alertness and interest and willingness to learn was very satisfactory.

Very respectfully,

CHARLES A. McMURRY.

ADDRESS OF WELCOME BY HON. CHARLES V. FURNES, ACTING MAYOR OF NEW YORK CITY, AUGUST 15, 1904.

On behalf of the city of New York I bid you a most cordial welcome. I sincerely hope that your visit here will not only be a recreation and a pleasure, but that you will return to your homes after traversing this country with a great deal of valuable information to impart to the young minds under your instruction and guidance. The profession of teaching is one of the noblest to which humanity can devote its energies and abilities, and it should be prosecuted with a conscientiousness no less sincere and devoted than the clergyman zealous for the salvation of his flock. "As the twig is bent the tree will incline," and the boy or girl who has been taught not only the fundamentals in a primary education, but has been grounded in the principles of morality and obedience to lawful authority, so essential to the formation of a good citizen, will not depart from them in his manhood.

Recognizing this principle, the city of New York spends annually in maintaining the department of education nearly \$22,000,000, more money than was required yearly for the maintenance of the entire Government of the United States for many years after its foundation. The perpetuity of our form of government depends upon an intelligent electorate, equal rights, and the enjoyment of liberty as propounded in the Declaration of Independence, and these can best be realized by a conscientious and educated citizenship. Other Republics have come and gone in the history of the world, but their foundations were laid in violence and bloodshed and they were extinguished in obloquy and dishonor. The Republic of the United States of America, founded on the principles that all men are endowed with inalienable rights to life and liberty and the pursuit of happiness—and they all stand equal before the law—has gone forward in a career of marvelous progress and development, and it will continue to do so if those principles are thoroughly implanted in the minds of future citizens by our teachers and public instructors. To you there is delegated a great duty and great responsibility. Teach the children who are under your charge that peace, and not warfare, is our refuge and our safety; that to follow the paths of honesty and industry at home, and not the prosecution of conquest abroad, is the purpose of our Government; that the development of our resources, the cultivation of our soil, the upbuilding of our manufactures for the uses and practices of a peaceful life are the things which silently ennoble the human character and swell the tide of human happiness. These are the things which have established and expanded this Republic, which knows how to be great without endangering its own peace at home or the internal or external peace of its neighbors.

Again, in behalf of this great municipality, I bid you a most cordial greeting.



INDEX.

A.

	Page.
Act to provide for public loans in Hawaii-----	232
Acting—	
Chief of the bureau of public lands of Porto Rico, report of the-----	317
Superintendent of the bureau of public works of Porto Rico, report of the---	320
Admission of Alaska as a State, strenuous objection to-----	3
Agricultural products of Hawaii-----	168
Agriculture, department of, in Hawaii, officials of the-----	307
Alaska—	
Admission of, as a State, strenuous objection to-----	3
Appendix—A.—Homestead entries in-----	42
B.—Regulations for the protection of game in-----	44
C.—Act to authorize the appointment of road overseers and to create road districts in the district of-----	48
D.—Act making further provision for a civil government for-----	50
E.—Act to amend and codify the laws relating to municipal corpo- rations of-----	51
F.—Act to extend the coal-land laws to the district of-----	54
G.—Act for the relief of the Western Alaska Construction Com- pany's railroad-----	56
H.—Joint resolution requesting the President to negotiate with Great Britain for a revision of the rules governing the taking of fur seals in the open waters of the North Pacific Ocean and Bering Sea-----	57
I.—Shipments of domestic merchandise from the United States to Alaska-----	57-69
J.—Mail service in, name of contractor, rate of pay, etc-----	70
K.—Report of transactions at custom-house, district of-----	83
L.—Report of the surveyor-general of-----	91
M.—Investigation of the mineral wealth of Alaska-----	96
N.—In re naturalization of John Minook, opinion-----	106
O.—Population, schools, markets, cost of living, etc., in Alaska---	117
P.—Size of Alaska-----	130
Q.—List of articles of foreign corporation filed in the office of the secretary of Alaska-----	131
R.—Catalogue of the exhibits of Alaska at the Louisiana Purchase Exposition-----	133
S.—Awards for, approved by the superior jury of awards of the Louisiana Purchase Exposition-----	162
Appropriation for the, exhibit at the Louisiana Purchase Exposition-----	133
As a possession, comment relative to-----	3
Bureau of education of, officials comprising the-----	38
Coal—	
Land—	
Act, digest of the-----	55
Laws, extension of same to the district of-----	54
Lands in, legislation pertaining to-----	11
Mining industry of-----	34
Commerce of-----	57-69
Copper—	
Center, markets, valuations at-----	127
Mining industry of-----	34
Corporations in—	
Amendment and codification of the laws relating to-----	51
List of foreign-----	131

Alaska—Continued.

	Page.
Cost of living, schools, markets, etc., and population of.....	117-130
Council City, markets, valuations at.....	129
Crimes and criminals, delay in the investigation and prosecution of.....	13
Customs districts from which domestic and foreign merchandise are shipped from the United States to.....	64, 65
Delegate to Congress from, advisability of the election of a.....	35
Department of—	
Agriculture—	
Business in, under the supervision of the.....	14
Of, officials comprising the.....	38
Commerce and Labor, business in, under the supervision of the.....	19
Justice, business in, under the supervision of the.....	12
The—	
Interior, business in, under the supervision of the.....	25
Navy, business in, under the supervision of the.....	22
War, business in, under the supervision of the.....	20
Deputy surveyors of, list of United States.....	93
Directory of, official.....	37
District—	
Government officials of.....	37
Historical Library and Museum of.....	26
Of—	
Report of transactions at custom-house.....	83-91
Shall not at any time hereafter be admitted as a State.....	3
Domestic merchandise, shipments of, from—	
The United States to.....	57-69
To the United States.....	65
Douglas City, population of, with industrial, financial, and educational statis- tics.....	120
Duties of the road overseers of.....	49
Education in, bureau of.....	25
Ellamar, markets, valuations at.....	125
Executive departments represented in.....	12
Fairbanks, markets, valuations at.....	128
Fisheries of.....	20
Foreign merchandise, shipments of, from—	
The United States to.....	64
To the United States.....	68
Fur seals, revision of the rules governing the taking of, requested.....	57
Game—	
In, regulations for the protection of.....	44
Laws of.....	19
Gold and silver, shipments of, from and to.....	69
Government for, law making provision for a civil.....	50
Governor of, report of the.....	3
Haines, population of, with industrial, financial, and educational statistics..	123, 126
Historical Library and Museum of, District—	
Fund of, receipts and disbursements of the.....	29
Interest manifested in, and donations made to the.....	26
Homestead entries in.....	42
Hope, population, school statistics, and market valuations at.....	123, 129
Illustrations—	
Map of—	
Compiled in 1898.....	164
Showing signal corps, telegraph, and cable system.....	164
Immigration to.....	20
Imports and exports of, in its commerce with foreign countries.....	69
Incorporated towns in, list of.....	38
Indian—	
Affairs in, bureau of.....	25
Police of, list of.....	41
Insane of, legislation pertaining to.....	11
Internal revenue—	
Amount of, collected during the year in.....	24
Collector of.....	38
Jackson, population of, with industrial, financial, and educational statistics..	123, 127

Alaska—Continued.

Page.

Joint resolution requesting the President to negotiate with Great Britain for a revision of the rules governing the taking of fur seals in the open waters of the North Pacific Ocean and Bering Sea	57
Juneau, population of, with industrial, financial, and educational statistics	117, 124
Ketchikan, population of, with industrial, financial, and educational statistics	121
Killisnoo, population of, with industrial, financial, and educational statistics	123, 127
Land, unsurveyed, in, number of acres of	95
Laws for, enacted at the last session of Congress	11
Lewis and Clark Exposition, legislation granting authority to aid, in providing an appropriate exhibit of its products and resources at the	12
Louisiana Purchase Exposition exhibits of, catalogue of the	30, 133
Mail service—	
Authorized for period during the season of navigation to carry such weight of mails as the Department may determine	72
General scheme of	72-82
In, name of contractor, rate of pay, etc	70
Markets—	
Of, prices ruling for provisions, etc	123
Schools, population of, cost of living, etc., in	117-130
Members bar, list of	40
Merchandise, domestic and foreign, shipped from the United States to	57-69
Meteorological record at Copper Center agricultural station	16
Metlakatla, markets, valuations at	128
Military posts in	20
Mineral—	
Surveyors of, list of United States deputy	92
Wealth of, investigation of the	96-102
Mining industry of	31
Municipal corporations in, legislation pertaining to	11
Navy Department, business in, under the supervision of the	22
Newspapers published in, list of	41, 142
Nome, population of, with industrial, financial, and educational statistics	122, 125
Notaries public for, appointments of	40
Organizations, social and fraternal, in	142
Petroleum deposits in	35
Placer mining in	31
Population—	
Of, by districts, estimated	6
Schools, markets, cost of living, etc., in	117-130
Post—	
Office Department, business in, under the supervision of the	23
Offices in, with name, date of appointment, and compensation of each postmaster	38
Public Health and Marine-Hospital Service in	24
Quartz mining in	32
Railroad—	
Construction in, legislation pertaining to	11
Facilities in, suggested Congressional encouragement of enterprises tending to promote	9
Receipts and disbursements of the Historical Library and Museum fund of	29
Report of the—	
Governor of	3
Surveyor-general of	91
Revenue-Cutter Service in	24
Road overseers for, provision made for the appointment of	11, 48
Roads in, proposed construction of wagon	10
Salmon-canning industry of	31
Schools, population, markets, cost of living, etc., in	117-130
Seal fisheries of, legislation pertaining to the	12
Sealevel, population of, with industrial, financial, and educational statistics	123
Shakan, population of, with industrial, financial, and educational statistics	123, 128
Shipments of—	
Domestic merchandise from, to the United States	65
Foreign merchandise from—	
The United States to	64
To the United States	68

Alaska—Continued.

Page.

Shipments of—Continued.

Gold and silver from and to	69
Sitka, markets, valuations at	124
Skagway, population of, with industrial, financial, and educational statistics	122
Social and fraternal organizations in	142
Statehood, strenuous objection to the admission of, to	3
Statistics of	20
Survey publications on, United States Geological	102
Surveyor-general of, report of the	91
Surveys in, contracts entered into for	93
Tin-mining industry of	34
Trails in, description and proposed location of military	10
Transportation—	
Facilities of, the problem of greatest importance	7
Rates in, excessive	8
Treadwell, population of, with industrial, financial, and educational statistics	121
Treasury Department, business in, under the supervision of the	23
United States—	
Commissioners in, criticism of	13
Courts in, officials of the	37
Customs district officials of	37
Valdez, population of, with industrial, financial, and educational statistics	122
Vessels, special landing places for, in	130
Wagon roads in, proposed construction of	10
War Department, business in, under the supervision of the	22
White population of, by districts, estimate of the	6
Wrangell, markets, valuations at	129
Yakutat, markets, valuations at	126
Yukon River, mail route	72

Appendix—

To the report of the commissioner of education for Porto Rico—

Exhibit I.—

Financial report of disbursing officer of the department of education for Porto Rico	456
Report of the chief of the division of school extension in Porto Rico	646
Exhibit A.—Allotments for specific schoolhouses in Porto Rico	648
Exhibit B.—Repayments by municipalities on account of schoolhouses in Porto Rico	649
Exhibit C.—General fund, disbursements of, in Porto Rico	649
Exhibit D.—Normal school group in Porto Rico, August 1, 1901, to June 30, 1903	650
Exhibit E.—Disbursements for specific schoolhouses in Porto Rico, January 1 to December 31, 1903	650
Report of the chief of division of school property and supplies for Porto Rico	641
Statistical report of the chief of division of school supervision and statistics in Porto Rico	460
Table I.—Distribution (pupils) by sex and color, common schools and special schools in Porto Rico	464-501
Table II.—Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools, in Porto Rico	502-524
Table III.—Distribution (pupils) by age, common schools and special schools, in Porto Rico	524-548
Table IV.—Aggregate number of days' attendance of all pupils, and aggregate number of days' actual teaching, common schools and special schools, in Porto Rico	549-559
Table V.—Average enrollment per school, average daily attendance per school, and average number of days' actual teaching per school for the common schools and for each respective class of special schools in Porto Rico	560-569
Table VI.—Average number of pupils taught each day, common schools and special schools, by municipalities and school districts, and for the island, showing the averages for the common schools and for each class of special schools and total average for same for the island of Porto Rico	570

Appendix—Continued.

Page.

To the report of the commissioner of education for Porto Rico—Continued.

Exhibit I.—Continued.

Statistical report of the chief of division of school supervision and statistics, etc.—Continued.

Table VII.—Distribution (teachers) by sex and color, common schools and special schools, in Porto Rico.....	574-613
Table VIII.—Total number of schools open, by municipalities and by school districts, for each respective class of common schools, and totals for the common schools, special schools, and common and special schools in Porto Rico.....	614
Table IX.—Number of buildings in use for schools, by municipalities, by school districts, classified as town, rural, and agricultural schools, in Porto Rico.....	620
Table X.—Private schools, distribution (pupils) by sex, color, and age, in Porto Rico.....	623
Table XI.—Enrollment, reenrollment, and number of different pupils enrolled during the school year, common schools and special schools, in Porto Rico.....	627
Table XII.—Average daily per cent of attendance for each of the school terms and for the year, also per cent of the estimated school population enrolled in the schools during the year, common schools and special schools, in Porto Rico.....	630
Table XIII.—Total and school population, census of 1899; also estimated total and school population, 1904, of Porto Rico....	632
Table XIV.—Bimonthly expenses incurred by the local school boards during the fiscal year ending June 30, 1904; also indebtedness of each local school board in the several municipalities at the close of the fiscal year, by municipalities, school districts, and totals, for the island of Porto Rico.....	633
Table XV.—Summary of school statistics for the school year 1903-4, common schools and special schools, in Porto Rico....	640
Exhibit II.—	
Reports of district school superintendents of Porto Rico.....	653
Report of the superintendent of school district—	
No. 1, San Juan P. R.....	653
No. 2, Fajardo, P. R.....	656
No. 3, Humacao, P. R.....	661
No. 4, Caguas, P. R.....	664
No. 5, Guayama, P. R.....	667
No. 6, Aibonito, P. R.....	669
No. 7, Coamo, P. R.....	672
No. 8, Ponce, P. R.....	676
No. 9, Yauco, P. R.....	678
No. 10, San German, P. R.....	680
No. 11, Mayaguez, P. R.....	683
No. 12, Aguadilla, P. R.....	685
No. 13, Camuy, P. R.....	687
No. 14, Arecibo, P. R.....	691
No. 15, Etuado, P. R.....	693
No. 16, Manati, P. R.....	697
No. 17, Toa Alta, P. R.....	699
No. 18, Bayamon, P. R.....	701
Exhibit III.—	
Reports on special schools and on special work in Porto Rico.....	703
Report of the high and graded schools in Porto Rico.....	706
Report of the supervising principal of industrial schools in Porto Rico.....	703
Report of the supervisor of drawing in the schools of Porto Rico....	711
Exhibit IV.—	
Report of the secretary-treasurer of the University of Porto Rico; principal of the normal department; principal of the practice school; director of agriculture.....	714
Report of the director of agriculture of the University of Porto Rico.....	721
Report of the principal of the normal department of the University of Porto Rico.....	717
Report of the principal of the practice school of the University of Porto Rico.....	720

Appendix—Continued.	Page.
To the report of the commissioner of education for Porto Rico—Continued.	
Exhibit IV.—Continued.	
Report of the secretary-treasurer of the University of Porto Rico----	714
Exhibit V.—	
Reports on Porto Rican teachers' summer-study trip to the United States-----	724
To the report of the commissioner of the interior for Porto Rico—	
Exhibit A.—	
Report of the acting chief of the bureau of public lands of Porto Rico_	317
Appendix 1.—Work of inspection, investigation, and classifica- tion of lands belonging to the people of Porto Rico-----	317
Appendix 2.—Office business transacted in the bureau of public lands of Porto Rico July 1, 1903, to June 30, 1904-----	319
Appendix 3.—Deeds registered and filed in the bureau of public lands in Porto Rico-----	320
Exhibit B.—	
Report of the acting superintendent of the bureau of public works of Porto Rico-----	320
Appendix A.—Report of the disbursing officer of the bureau of public works of Porto Rico-----	339
Appendix B.—Report of the San Juan, Porto Rico, district en- gineer-----	348
Appendix C.—Report of the Ponce, Porto Rico, district en- gineer-----	357
Appendix D.—Report of the Mayaguez, Porto Rico, district en- gineer-----	368
Appendix E.—Report of the supervisor of public buildings of Porto Rico-----	373
Appendix F.—Report of the surveyor and architect of the bureau of public works of Porto Rico-----	378
Appendix G.—Bids and awards for the construction of buildings, etc., in Porto Rico-----	380
Appendix H.—Laws relating to the public works in Porto Rico--	385
Appendix I.—Business methods of the bureau of public works in Porto Rico-----	393
Appendix K.—Tests made in the road material laboratory at Washington of twelve samples of rock used in road work in Porto Rico-----	407
Exhibit C.—Report of the superintendent of the bureau of insular tele- graph of Porto Rico-----	416
Exhibit D.—Report of the chief of the bureau of agriculture and mines in Porto Rico-----	422
Exhibit E.—Report of the chief of the division of archives in Porto Rico--	425
To the report of the governor of Alaska—	
Appendix A.—Homestead entries in Alaska-----	42
Appendix B.—Regulations for the protection of game in Alaska-----	44
Appendix C.—Act to authorize the appointment of road overseers and to create road districts in the district of Alaska-----	48
Appendix D.—Act making further provision for a civil government for Alaska-----	50
Appendix E.—Act to amend and codify the laws relating to municipal corporations of Alaska-----	51
Appendix F.—Act to extend the coal-land laws to the district of Alaska--	54
Appendix G.—Act for the relief of the Western Alaska Construction Com- pany's railroad-----	56
Appendix H.—Joint resolution requesting the President to negotiate with Great Britain for a revision of the rules governing the taking of fur seals in the open waters of the North Pacific Ocean and Bering Sea....	57
Appendix I.—Shipments of domestic merchandise from the United States to Alaska-----	57-69
Appendix J.—Mail service in Alaska, name of contractor, rate of pay, etc.	70
Appendix K.—Report of transactions at custom-house, district of Alaska--	83
Appendix L.—Report of the surveyor-general of Alaska-----	91
Appendix M.—Investigation of the mineral wealth of Alaska-----	96
Appendix N.—In re naturalization of John Minook—opinion-----	106
Appendix O.—Population, schools, markets, cost of living, etc., in Alaska--	117
Appendix P.—Size of Alaska-----	130

Appendix—Continued.

Page.

To the report of the governor of Alaska—Continued.	
Appendix Q.—List of articles of foreign corporation filed in the office of the secretary of Alaska	131
Appendix R.—Catalogue of the exhibits of Alaska at the Louisiana Purchase Exposition	133
Appendix S.—Awards for Alaska approved by the superior jury of awards of the Louisiana Purchase Exposition	162
To the report of the governor of Hawaii—	
Appendix A.—Letter from the Honolulu, Hawaii, Chamber of Commerce	299
Appendix B.—Letter from the Honolulu, Hawaii, Chamber of Commerce	300
Appendix C.—Letter from the Merchants' Association of Honolulu, Hawaii	301
Appendix D.—Letter from the Hilo, Hawaii, Board of Trade	303
Appendix E.—Letter from the Wailuku, Hawaii, Improvement Association	305
Appropriation for the Alaskan exhibit at the Louisiana Purchase Exposition	133
Appropriations—	
Communications from public organizations in Hawaii recommending	299
For dredging the harbor of Honolulu, Hawaii, public buildings, etc., requested	183
Archives and records of Porto Rico	316
Area and location of the islands comprising the Territory of Hawaii	167
Attorney-general's department of Hawaii, report in detail relative to the	248
Auditor of Hawaii, report in detail of the	238-242

B.

Bids and awards for the construction of buildings, etc., in Porto Rico	380
Board of health of Hawaii, personnel and duties of the	185
Bonded debt of Hawaii	234
Bonds—	
Of Hawaii, first issue of public-improvement	231
Sale of Hawaiian	223
Bubonic plague in Hawaii, disastrous fire and enormous expense of stamping out the	231
Buildings in Hawaii, public—	
Army, navy, Territorial, and private	179
Constructed during the year	225
Bureau of—	
Agriculture—	
And mines of Porto Rico, report of the chief of the	316
Of Porto Rico, abolishment of the	311
Education of Alaska, officials comprising the	38
Insular telegraph of Porto Rico, report of the superintendent of the	315, 416
Public works of Porto Rico, list of employees of the	323

C.

Chinese fund, act of the legislature of Hawaii providing for the care, custody, control, and payment of	175
Climate of Hawaii	168
Coal—	
Land—	
Act for Alaska, digest of the	55
Laws, extension of same to the district of Alaska	54
Lands in Alaska, legislation pertaining to	11
Mining industry of Alaska	34
Coast-survey service of Hawaii, officers of the	307
Coffee industry in Hawaii	276
Commerce of—	
Alaska	57-69
Hawaii—	
General	290
Trans-Pacific	185
Commissioner of—	
Education for Porto Rico, report of the	429
The interior for Porto Rico, report of the	311
Convict labor, road work in Porto Rico by	329

Copper--	Page.
Center, Alaska, markets, valuations at-----	127
Mining industry of Alaska-----	34
Corporations in Alaska--	
Amendment and codification of the laws relating to-----	51
List of foreign-----	131
Cost of living, schools, markets, etc., in, and population of Alaska-----	117-130
Council City, Alaska, markets, valuations at-----	129
Crimes and--	
Criminal record of Hawaii-----	243-246
Criminals in Alaska, delay in the investigation and prosecution of-----	13
Crown lands of Hawaii, brief description of-----	212
Customs--	
Districts from which domestic and foreign merchandise are shipped from the United States to Alaska-----	64, 65
Division of Hawaii, roster of the-----	307
Laws of Hawaii, infractions of the-----	248
D.	
Delegate to Congress from Alaska, advisability of the election of a-----	35
Department of--	
Agriculture--	
Business in Alaska under the supervision of the-----	14
Of Alaska, officials comprising the-----	38
Commerce and Labor, business in Alaska under the supervision of the-----	19
Justice--	
Business in Alaska under the supervision of the-----	12
Of Hawaii, roster of the-----	307
The--	
Interior, business in Alaska under the supervision of the-----	25
Judiciary of Hawaii, roster of the-----	307
Navy, business in Alaska under the supervision of the-----	22
War, business in Alaska under the supervision of the-----	20
Departmental organization in Porto Rico, changes in the-----	311
Deputy surveyors of Alaska, list of United States-----	93
Director of--	
Agriculture of the University of Porto Rico, report of the-----	721
Health, charities, and corrections in Porto Rico, creation of the office of-----	311
Directory of Alaska, official-----	37
Disbursing officer of the--	
Bureau of public works of Porto Rico, report of the-----	339
Department of education of Porto Rico, report of the-----	456
District--	
Engineer, report of the--	
Mayaguez, Porto Rico-----	368
Ponce, Porto Rico-----	357
San Juan, Porto Rico-----	348
Government officials of Alaska-----	37
Historical Library and Museum of Alaska-----	26
Of Alaska--	
Report of transactions at custom-house-----	83-91
Shall not at any time hereafter be admitted as a State-----	3
School superintendents of Porto Rico, reports of-----	653
Division of--	
Archives in Porto Rico, report of the chief of the-----	425
Disbursements and accounts of Porto Rico, creation of the-----	311
School--	
Extension in Porto Rico, report of the chief of the-----	646
Property and supplies for Porto Rico, report of the chief of-----	641
Domestic merchandise, shipments of, from--	
Alaska to the United States-----	65
The United States to Alaska-----	57-69
Douglas City, Alaska, population of, with industrial, financial, and educational statistics-----	120
Drawing in the schools of Porto Rico, report of the supervisor of-----	711

Duties of the—	Page.
Board of health of Hawaii.....	186
Road overseers of Alaska.....	49

E.

Education—	
And the public schools of Hawaii, report in detail and statistics relating to—	189-198
In Alaska, bureau of.....	25
Eleemosynary institutions in Hawaii.....	186
Ellamar, Alaska, markets, valuations at.....	125
Embezzlement by public officials in the land office of Hawaii.....	177, 205
Entomologist of Hawaii, report of the.....	265
Executive Department represented in Alaska.....	12
Experiment station in Hawaii, officials of the agricultural.....	307

F.

Fairbanks, Alaska, markets, valuations at.....	128
Federal—	
Law work in Hawaii, report in detail relative to.....	246
Officials of Hawaii, roster of.....	307
Finances of Hawaii, statement in detail relative to the.....	229-241
Financial—	
Conditions in Hawaii as rendered by the treasurer.....	233
Status of Hawaii.....	174
Fire claims commission of Hawaii, statement of awards made and final settlement of pending cases.....	176, 235
Fisheries of Alaska.....	20
Fishery privileges in Hawaii.....	180
Foreign—	
And domestic corporations in Hawaii, franchises granted, and capitalized value of the companies operating under.....	236
Merchandise, shipments of, from—	
Alaska to the United States.....	68
The United States to Alaska.....	64
Forestry in Hawaii, report in detail relative to.....	266
Fur seals, revision of the rules governing the taking of Alaskan, requested.....	57

G.

Game—	
In Alaska, regulations for the protection of.....	44
Laws of Alaska.....	19
Gold and silver, shipments of, from and to Alaska.....	69
Government—	
For Alaska, law making provision for a civil.....	50
Of Hawaii, economical and simple system of.....	170
Officials of the district of Alaska.....	37
Governor of—	
Alaska, report of the.....	3
Hawaii, report of the.....	165

H.

Haines, Alaska, population of, with industrial, financial, and educational statistics.....	123, 126
Hawaii—	
Act to provide for public lands in.....	232
Agricultural products of.....	168
Agriculture, department of, in, officials of the.....	307
Appendix—	
A.—Letter from the Honolulu Chamber of Commerce.....	299
B.—Letter from the Honolulu Chamber of Commerce.....	300
C.—Letter from the Merchants' Association of Honolulu.....	301
D.—Letter from the Hilo Board of Trade.....	303
E.—Letter from the Wailuku Improvement Association.....	305

Hawaii—Continued.	Page.
Appropriations—	
Communications from public organizations in, recommending	299
For dredging the harbor of Honolulu, public buildings, etc., requested	183
Area and location of the islands comprising the Territory of	167
Attorney-general's department of, report in detail relative to the	248
Auditor of, report in detail of the	238-242
Board of health of, personnel and duties of the	185
Bonded debt of	234
Bonds of—	
First issue of public-improvement	231
Sale of	223
Bubonic plague in, disastrous fire and enormous expense of stamping out the	231
Buildings in, public—	
Army, Navy, Territorial, and private	179
Constructed during the year	225
Chinese fund, act of the legislature of, providing for the care, custody, control, and payment of	175
Climate of	168
Coast-survey service of, officers of the	307
Coffee industry in	276
Commerce of—	
General	290
Trans-Pacific	185
Crimes and criminal record of	243-246
Crown lands of, brief description of	212
Customs—	
Division of, roster of the	307
Laws of, infractions of the	248
Department of justice of, roster of the	307
Duties of the board of health of	186
Education and the public schools of, report in detail and statistics relating to	189-198
Eleemosynary institutions in	186
Embezzlement by public officials in the land office of	177, 205
Entomologist of, report of the	265
Experiment station in, officials of the agricultural	307
Federal—	
Law work in, report in detail relative to	246
Officials of, roster of	307
Finances of, statement in detail relative to the	229-241
Financial—	
Conditions in, as rendered by the treasurer	233
Status of	174
Fire claims commission of, statement of awards made and final settlement of pending cases	176, 235
Fishery privileges in	180
Foreign and domestic corporations in, franchises granted, and capitalized value of the companies operating under	236
Forestry in, report in detail relative to	266
Government of, economical and simple system of	170
Governor of, report of the	165
Health conditions of, report in detail on the	185, 189
History and organization of	169
Honolulu Harbor—	
Dredging of	223
Necessary improvements to, and sanitary conditions of	168, 185
Illustration—map of	308
Immigration service of, officials of the	307
Improvements recommended and necessary in	226
Industries and enterprises in, description in detail of	270
Insane asylum of, improvements and new buildings provided for the	187
Internal—	
Improvements in	178
Revenue—	
Laws of, infractions of the	247
Receipts from various sources in	177
Service of, officers of the	307

Hawaii—Continued.	Page.
Islands composing the Territory of, with their location, number of-----	167
Judiciary—	
Of, report in detail relative to the-----	242
System of-----	170
Labor conditions in, amended immigration laws necessary for improving-----	170
Land—	
Act of 1895—	
Digest of the-----	200
Lands in, taken under general provisions of the-----	210
In—	
General leases issued-----	211
Island of—	
Area of, by districts-----	217
Kauai, area of, by districts-----	216
Lanai, area of, by districts-----	216
Maui, area of, by districts-----	214
Molokai, area of, by districts-----	216
Oahu, area of, by districts-----	212
Settlement of-----	204
Water lease issued for the conservation and distribution of running natural surface water-----	205
Laws and public lands of, report in detail relative to-----	198-220
Office in—	
Embezzlements in the conduct of the-----	177, 205
Expenditures of the-----	211
Personnel, and report of the commissioner of the-----	204
Receipts of the-----	207
Ownership in-----	198
Patents issued in-----	207
Sales and revenue of-----	207
Legislation suggested to meet the changed conditions in-----	181
Legislature of—	
Loose management of the finances of-----	246
Special session, 1904, expenses of the-----	237
Leprosy settlement on Molokai Island, improvement in the conditions of, and treatment of the afflicted-----	187
Light-house service in-----	178
Live-stock industry in-----	283
Marine-hospital service of, roster of officials of the-----	308
Meteorological conditions in, report relative to the-----	263
Navigation laws of, enforcement of the-----	247
Officials of, roster of-----	307
Pineapple industry in-----	280
Police department of, report in detail relative to the-----	251-260
Population of-----	169
Post-office officials in, roster of the-----	308
Public—	
Buildings in—	
Army, Navy, Territorial, and private-----	179
Constructed during the year-----	225
Improvement bonds of, first issue of-----	231
Lands and land laws of, report in detail relative to-----	198-220
Works—	
Department in, report in detail relative to the-----	220-229
Of, department of, duties pertaining to the-----	169
Rainfall in-----	168
Rapid-transit service in-----	287
Receipts—	
And—	
Disbursements of, 1900-1904-----	241
Expenditures of-----	238
Of the public lands department of-----	207
Recommendations of the governor of-----	181
Register and directory of, for 1904-----	307
Report of the governor of-----	167

Hawaii—Continued.	Page.
Reports of the various departments of the government of-----	185
Resources of-----	167
Road—	
Funds for the various islands in, expenditure of-----	222
Work and bridges in-----	222
Roster of officials of-----	307
Salaries and pay roll of the department of public works in-----	221
School—	
Buildings constructed in, general reference to-----	225
Teachers, and pupils in, number of-----	190
Schools in—	
Brief description of industrial-----	195
Enrollment of pupils in public and private, total-----	195
Girls' industrial-----	198
Lahainaluna educational establishment-----	197
Nationalities of—	
Pupils of the-----	191
Teachers of the-----	193
Pupils in sewing, agricultural, manual work, and drawing, number of-----	195
Schoolhouses and teachers' cottages-----	196
Waialeale industrial school for boys-----	197
Sisal industry in-----	279
Steamship communication with-----	295
Sugar—	
Industry in-----	270
The staple product of-----	167
Surveying department of, report in detail relative to the-----	261
Taxable property in, assessed valuation of real and personal-----	235
Temperature of-----	168
Treasurer of, report of the-----	229-241
Treasury department of, roster of the-----	307
United States naval station, officers of the-----	308
Vanilla industry in-----	281
Vessels entering and clearing in the district of-----	295
Water supply and systems for the islands of-----	223
Wharfage system and improvements in-----	224
Health conditions of Hawaii, report in detail on the-----	185
Heliograph service in Porto Rico-----	417
Historical Library and Museum—	
Fund of Alaska, receipts and disbursements of the-----	29
Of Alaska, District-----	26
History and organization of Hawaii-----	169
Homestead entries in Alaska-----	42
Honolulu Harbor—	
Dredging of-----	223
Necessary improvements to, and sanitary conditions of-----	168, 185
Hope, Alaska, population, school statistics, and market valuations at-----	123, 129

I.

Illustrations—

A new type of school building constructed by the department of education— graded school at Adjuntas, P. R-----	455
A rural school—	
In Porto Rico—rented building-----	455
Ponce district, P. R-----	455
A school building by the sea—Lafayette Graded School, Aguadilla, P. R-----	455
A 2-room frame rural school building constructed by the department of educa- tion of Porto Rico-----	455
Agricultural rural school, Rio Pedras, P. R-----	455
An older type of school building constructed by the department of education— Jefferson Graded School, Arecibo, P. R-----	455
Boys' school band, Mayaguez Industrial School, Porto Rico-----	455
Cancel bridge, Bayamon-Comerio road, Porto Rico-----	426
Class—	
At work in Mayaguez Industrial School, Porto Rico-----	455
Room in Mayaguez Graded School, Porto Rico-----	455

Illustrations—Continued.	Page.
Convicts' camp at—	
Humacao, P. R.-----	426
Jayuya, P. R.—interior of barracks-----	426
Dajaos bridge, Bayamon-Comerio road, Porto Rico-----	426
Diagram showing road construction in Porto Rico, 1859 to 1904-----	426
Finished road—	
Bayamon-Comerio, Porto Rico (bird's-eye view)-----	426
Tallones-Adjuntas, Porto Rico—steam roller used for consolidation-----	426
Garfield Graded School, Guanica, P. R.-----	455
Graded schools, Mayaguez Playa, P. R.—occupying rented quarters over a warehouse-----	455
Highest grade in principal's room—Lares Graded School, Porto Rico-----	455
Hostos Graded School, Anasco, P. R.-----	455
J. Fenimore Cooper Graded School, Sabana Grande, P. R.-----	455
J. M. Curry Graded School, Cabo Rojo, P. R.-----	455
Manati—	
Pier, Porto Rico-----	426
River, P. R., showing pier and natural abutment-----	426
Map of—	
Alaska-----	164
Porto Rico-----	426
The Territory of Hawaii-----	308
McKinley Agricultural Rural School, Ponce district, P. R.—building constructed by the department of education-----	455
Normal department, University of Porto Rico-----	455
Principal, teachers, and a few advanced pupils—Mayaguez Industrial School, Porto Rico-----	455
Public school for prisoners in jail at San Juan, P. R.-----	455
Reconstruction of the street along the water front of San Juan Harbor, P. R.--	426
Road No. 6, Porto Rico, Tallones-Adjuntas section—	
Curve three and one-half kilometers from Adjuntas-----	426
General view, kilometer 3 to kilometer 5-----	426
Heaviest cut at Tallones-----	426
Rock cut and culvert at Tallones-----	426
View looking from Tallones-----	426
Roosevelt Industrial School, Ponce, P. R.-----	455
Rural school in rented building, Ponce district, P. R.-----	455
Signal corps, telegraph and cable system of Alaska-----	164
Submergible bridge, Anasco River, Porto Rico—	
End view-----	426
Side view-----	426
Immigration—	
Service of Hawaii, officials of the-----	307
To Alaska-----	20
Imports and exports of Alaska into commerce with foreign countries-----	69
Improvements recommended and necessary in Hawaii-----	226
Incorporated towns in Alaska, list of-----	38
Indian—	
Affairs in Alaska, bureau of-----	25
Police of Alaska, list of-----	41
Industrial schools in Porto Rico, report of the supervising principal of-----	703
Industries and enterprises in Hawaii, description of, in detail-----	270
Insane—	
Asylum of Hawaii, improvements and new buildings provided for the-----	187
Of Alaska, legislation pertaining to-----	11
Interior for Porto Rico, report of the commissioner of the-----	309
Internal—	
Improvements in Hawaii-----	178
Revenue—	
Collector of, for Alaska-----	38
Laws of Hawaii, infractions of the-----	247
Of Alaska-----	24
Receipts from various sources in Hawaii-----	177
Service of Hawaii, officers of the-----	307
Islands composing the Territory of Hawaii, with their location, number of-----	167

J.

Page.

Jackson, Alaska, population of, with industrial, financial, and educational statistics-----	123, 127
Joint resolution requesting the President to negotiate with Great Britain for a revision of the rules governing the taking of fur seals in the open waters of the North Pacific Ocean and Bering Sea-----	57
Judiciary—	
Of Hawaii, report in detail relative to the-----	242
System of Hawaii-----	179
Juneau, Alaska, population of, with industrial, financial, and educational statistics-----	117, 124

K.

Ketchikan, Alaska, population of, with industrial, financial, and educational statistics-----	121
Killsnoo, Alaska, population of, with industrial, financial, and educational statistics-----	123, 127

L.

Labor conditions in Hawaii, amended immigration laws necessary for improving--	170
Land—	
Act of 1895—	
Digest of the Hawaiian-----	200
Lands in Hawaii taken under general provisions of the-----	210
In Hawaii—	
General leases issued-----	211
Island of—	
Hawaii, area of, by districts-----	217
Kauai, area of, by districts-----	216
Lanai, area of, by districts-----	216
Maui, area of, by districts-----	214
Molokai, area of, by districts-----	216
Oahu, area of, by districts-----	212
Settlement of-----	204
Water lease issued for the conservation and distribution of running natural surface water-----	205
Laws and public lands of Hawaii, report in detail relative to-----	198-220
Office in Hawaii—	
Embezzlements in the conduct of the-----	177, 205
Expenditures of the-----	211
Personnel, and report of the commissioner of the-----	204
Receipts of the-----	207
Ownership in Hawaii-----	198
Patents issued in Hawaii-----	207
Sales and revenue of Hawaii-----	207
Unsurveyed, in Alaska, number of acres of-----	95
Lands—	
Belonging to the people of Porto Rico, work of inspection, investigation, and classification of-----	317
In Porto Rico, surveys and records of harbor-----	332
Laws—	
For Alaska enacted at the last session of Congress-----	11
Relating to the public works in Porto Rico-----	385
Legislation suggested to meet the changed conditions in Hawaii-----	181
Legislature of Hawaii—	
Loose management of the finances of-----	246
Special session, 1904, expenses of the-----	237
Leprosy settlement on Molokai Island, Hawaii, improvement in the condition of, and treatment of the afflicted-----	187
Lewis and Clark Exposition, legislation granting authority to aid Alaska in providing an appropriate exhibit of its products and resources at the-----	12
Light-house service in Hawaii-----	178
Live-stock industry in Hawaii-----	283
Loan for public improvements in Porto Rico-----	313

Louisiana Purchase Exposition—	Page.
Exhibits of Alaska, catalogue of the-----	30, 133
Schools in Porto Rico, exhibit of pupils' work for the-----	461

M.

Mail service in Alaska—	
Authorized for period during the season of navigation to carry such weight of mails as the Department may determine-----	72
General scheme of the-----	72-82
Name of contractor, rate of pay, etc-----	70
Marine-hospital service of Hawaii, roster of officials of the-----	308
Markets—	
Of Alaska, prices ruling for provisions, etc., in the-----	123
Schools, population, cost of living, etc., in Alaska-----	117-130
Members of Alaska bar, list of-----	40
Merchandise, domestic and foreign, shipped from the United States to Alaska-----	57-69
Meteorological—	
Conditions in Hawaii, report relative to the-----	263
Record at Copper Center agricultural station, Alaska-----	16
Metlakatla, Alaska, markets, valuations at-----	128
Military posts in Alaska-----	20
Mineral—	
Surveyors of Alaska, list of United States deputy-----	92
Wealth of Alaska, investigation of the-----	96-102
Mining industry of Alaska-----	31
Municipal corporations in Alaska, legislation pertaining to-----	11

N.

Navigation laws of Hawaii, enforcement of the-----	247
Navy Department, business in Alaska under the supervision of the-----	22
Newspapers published in Alaska, list of-----	41, 142
Nome, Alaska, population of, with industrial, financial, and educational statistics-----	122, 125
Normal department of the University of Porto Rico, report of the principal of the-----	717
Notaries public for Alaska, appointments of-----	40

O.

Officials of Hawaii, roster of-----	307
Organizations, social and fraternal, in Alaska-----	142

P.

Petroleum deposits in Alaska-----	35
Pineapple industry in Hawaii-----	280
Placer mining in Alaska-----	31
Police department of Hawaii, report in detail relative to the-----	251-260
Population—	
Of—	
Alaska, by districts, estimated-----	6
Hawaii-----	169
Porto Rico-----	431
Schools, markets, cost of living, etc., in Alaska-----	117-130
Porto Rico—	
Commissioner of education for—	
Appendix to the report of the—	
Exhibit I.—	
Financial report of disbursing officer of the department of education of-----	456
Report of the chief of the division of school extension in-----	646
Exhibit A.—Allotments for specific schoolhouses in-----	648
Exhibit B.—Repayments by municipalities on account of schoolhouses in-----	649

Porto Rico—Continued.

Commissioner of education for—Continued.

Page.

Appendix to the report of the—Continued.

Exhibit I.—Continued.

Report of the chief of the division of school extension in—Cont'd.

Exhibit C.—General fund, disbursements of, in-----	649
Exhibit D.—Normal school group in, August 1, 1901, to June 30, 1903-----	650
Exhibit E.—Disbursements for specific schoolhouses in, Jan- uary 1 to December 31, 1903-----	650
Report of the chief of division of school property and supplies for -----	641
Statistical report of the chief of division of school supervision and statistics in-----	460
Table I.—Distribution (pupils) by sex and color—common schools and special schools in-----	464-501
Table II.—Distribution (pupils) by grades, common schools, high schools, and agricultural schools, and by age of pupils, special schools, in-----	502-524
Table III.—Distribution (pupils) by age, common schools and special schools, in-----	524-548
Table IV.—Aggregate number of days' attendance of all pupils, and aggregate number of days' actual teaching, common schools and special schools, in-----	549-559
Table V.—Average enrollment per school, average daily attendance per school, and average number of days' actual teaching per school for the common schools and for each respective class of special schools, in-----	560-569
Table VI.—Average number of pupils taught each day, com- mon schools and special schools, by municipalities and school districts, and for the island, showing the averages for the common schools and for each class of special schools, and total averages for same for the island-----	570
Table VII.—Distribution (teachers) by sex and color, com- mon schools and special schools, in-----	574-613
Table VIII.—Total number of schools open, by municipalities and by school districts, for each respective class of com- mon schools, and totals for the common schools, special schools, and common and special schools, in-----	614
Table IX.—Number of buildings in use for schools, by mun- icipalities, by school districts, classified as town, rural, and agricultural schools, in-----	620
Table X.—Private schools, distribution (pupils) by sex, color, and age, in-----	623
Table XI.—Enrollment, reenrollment, and number of dif- ferent pupils enrolled during the school year, common schools and special schools, in-----	627
Table XII.—Average daily per cent of attendance for each of the school terms and for the year; also per cent of the estimated school population enrolled in the schools during the year, common schools and special schools, in-----	630
Table XIII.—Total and school population, census of 1899; also estimated total and school population, 1904, of-----	632
Table XIV.—Bimonthly expenses incurred by the local school boards during the fiscal year ending June 30, 1904; also indebtedness of each local school board in the several municipalities at the close of the fiscal year by munic- ipalities, school districts, and totals for the island of-----	633
Table XV.—Summary of school statistics for the school year 1903-4, common schools and special schools, in-----	640
Exhibit II.—	
Reports of district school superintendents of-----	653
Report of the superintendent of school district—	
No. 1, San Juan-----	653
No. 2, Fajardo-----	656
No. 3, Humacao-----	661
No. 4, Caguas-----	664

Porto Rico—Continued.

Page.

Commissioner of education for—Continued.

Appendix to the report of the—Continued.

Exhibit II.—Continued.

Report of the superintendent of school districts—Continued.

No. 5, Guayama	667
No. 6, Albonito	669
No. 7, Coamo	672
No. 8, Ponce	676
No. 9, Yauco	678
No. 10, San German	680
No. 11, Mayaguez	683
No. 12, Aguadilla	685
No. 13, Camuy	687
No. 14, Arecibo	691
No. 15, Etuado	693
No. 16, Manati	697
No. 17, Toa Alta	699
No. 18, Bayamon	701

Exhibit III.—

Reports on special schools and on special work in	703
Report of the high and graded schools in	706
Report of the supervising principal of industrial schools in	703
Report of the supervisor of drawing in the schools of	711

Exhibit IV.—

Report of the secretary-treasurer of the university of; principal of the normal department; principal of the practice school; director of agriculture	714
Report of the director of agriculture of the university of	721
Report of the principal of the normal department of the university of	717
Report of the principal of the practice school of the university of	720
Report of the secretary-treasurer of the university of	714

Exhibit V.—

Reports on teachers' summer study trip to the United States	724
Director of agriculture of the University of, report of the	721
Disbursing officer of the department of education of, report of the	456
District school superintendents of, reports of	653
Division of school—	
Extension in, report of the chief of	646
Property and supplies for, report of the chief of	641
Drawing in the schools of, report of the supervisor of	711
Illustrations—	
A new type of school building constructed by the department of education—graded school at Adjuntas	455
A rural school—	
Ponce district	455
Rented building	455
A school building by the sea—Lafayette Graded School, Aguadilla	455
A two-room frame rural school building constructed by the department of education	455
An older type of school building constructed by the department of education—Jefferson Graded School, Arecibo	455
Boys' school band, Mayaguez Industrial School	455
Class—	
At work in Mayaguez Industrial School	455
Room in Mayaguez Graded School	455
Garfield Graded School, Guanica	455
Graded schools, Mayaguez Playa—occupying rented quarters over a warehouse	455
Highest grade in principal's room—Lares Graded School	455
Hostos Graded School, Anasco	455
J. Fenimore Cooper Graded School, Sabana Grande	455
J. M. Curry Graded School, Cabo Rojo	455
McKinley Agricultural Rural School, Ponce district—building constructed by the department of education	455
Normal department, University of Porto Rico	455

Porto Rico—Continued.

Commissioner of education for—Continued.

Page.

Illustrations—Continued.

Principal, teachers, and a few advanced pupils, Mayaguez Industrial School.....	455
Public school for prisoners in jail at San Juan.....	455
Roosevelt Industrial School, Ponce.....	455
Rural school in rented building, Ponce district.....	455
Industrial schools in, report of the supervising principal of.....	703
Louisiana Purchase Exposition, schools in, exhibit of pupils' work for.....	461
Normal department of the University of, report of the principal of the.....	717
Population of the island of.....	431
Practice school of the University of, report of the principal of the.....	720
Public instructions in, substantial progress made in all the departments of.....	429
Recommendations of the commissioner of education for.....	463
Report of the—	
Chief of division of school—	
Extension in.....	646
Property and supplies for.....	641
Supervision and statistics in.....	460
Chiefs of divisions in the department of education of.....	456
Director of agriculture of the University of.....	721
Disbursing officer of the department of education of.....	456
High and graded schools in.....	706
Principal of the—	
Normal department of the University of.....	717
Practice School of the University of.....	720
Secretary-treasurer of the University of.....	714
Superintendent of school district—	
No. 1, San Juan.....	652
No. 2, Fajardo.....	656
No. 3, Humacao.....	661
No. 4, Caguas.....	664
No. 5, Guayama.....	667
No. 6, Aibonito.....	669
No. 7, Coamo.....	672
No. 8, Ponce.....	676
No. 9, Yauco.....	678
No. 10, San German.....	680
No. 11, Mayaguez.....	683
No. 12, Aguadilla.....	685
No. 13, Camuy.....	687
No. 14, Arecibo.....	691
No. 15, Etuado.....	693
No. 16, Manati.....	697
No. 17, Toa Alta.....	701
No. 18, Bayamon.....	701
Supervising principal of industrial schools in.....	703
Supervisor of drawing in the schools of.....	711
Teachers' summer-study trip to the United States.....	724
School—	
Buildings in—	
Construction of new.....	450
Report of the chief of the division of school extension of.....	646
Population of.....	431
Property and supply division of, report of the chief of the.....	641
Statistics of.....	430
Supervision and statistics in, statistical report of the chief of division of.....	460
Schools—	
Graded and industrial, in, buildings completed for, during the year..	647
Schools in—	
Aggregate number of days' attendance and actual teaching in.....	549-559
Average—	
Enrollment, daily attendance, and days of actual teaching per school in the.....	560-569

Porto Rico—Continued.	Page.
Commissioner of education for—Continued.	
Schools in—Continued.	
Average number of pupils taught each day in, by municipalities and school districts.....	570
Buildings in use for, classified as town, rural, and agricultural, by municipalities and school districts.....	620
Distribution of—	
Pupils by—	
Age in.....	524-548
Grades in.....	502-524
Sex and color in.....	464-501, 623
Teachers in, by sex and color.....	574-613
Enrollment, attendance, etc., in the.....	433
Exhibit of pupils' work for Louisiana Purchase Exposition.....	461
Expenses of local boards of.....	633
Financial report of the disbursing officer relative to.....	456
Improved enrollment and attendance in.....	462
Industrial, report of the supervising principal of.....	703
Receipts and disbursements of the teachers' summer-school fund.....	443
Report of the—	
High and graded.....	706
Supervisor of drawing in the.....	711
Teachers—	
Employed in the, total number of.....	432
Salaries, and general financial statistics relating to.....	434
Summer-study trip to the United States.....	436
Total number of open, by municipalities and school districts.....	614
Work of American teachers of.....	445
Students from, in the United States for literary and professional training.....	446
Teachers—	
Institutes, inauguration of, in.....	448
Of schools in, work of American.....	445
Summer-study trip to the United States, report in detail relative to the.....	436, 724
University of, national benefits resulting from the establishment of the.....	443
Commissioner of the interior for—	
Acting—	
Chief of the bureau of public lands of, report of the.....	317
Superintendent of the bureau of public works of, report of the.....	320
Appendix to the report of the—	
Exhibit A.—	
Report of the acting chief of the bureau of public lands of.....	317
Appendix 1.—Work of inspection, investigation, and classification of lands belonging to the people of.....	317
Appendix 2.—Office business transacted in the bureau of public lands of, July 1, 1903, to June 30, 1904.....	319
Appendix 3.—Deeds registered and filed in the bureau of public lands in.....	320
Exhibit B.—	
Report of the acting superintendent of the bureau of public works of.....	320
Appendix A.—Report of the disbursing officer of the bureau of public works of.....	339
Appendix B.—Report of the San Juan district engineer.....	348
Appendix C.—Report of the Ponce district engineer.....	357
Appendix D.—Report of the Mayaguez district engineer.....	368
Appendix E.—Report of the supervisor of public buildings of.....	373
Appendix F.—Report of the surveyor and architect of the bureau of public works of.....	373
Appendix G.—Bids and awards for the construction of buildings, etc., in.....	380
Appendix H.—Laws relating to the public works in.....	385
Appendix I.—Business methods of the bureau of public works in.....	393

Porto Rico—Continued.	
Commissioner of the interior for—Continued.	Page.
Appendix to the report of the—Continued.	
Exhibit B.—Continued.	
Report of the acting superintendent, etc.—Continued.	
Appendix K.—Tests made in the road-material laboratory at Washington of twelve samples of rock used in road work in—	407
Exhibit C.—Report of the superintendent of the bureau of insular telegraph of—	416
Exhibit D.—Report of the chief of the bureau of agriculture and mines in—	422
Exhibit E.—Report of the chief of the division of archives in—	425
Archives and records of—	316
Bids and awards for the construction of buildings, etc., in—	380
Bureau of—	
Agriculture—	
And mines in, report of the chief of the—	316, 422
Of, abolishment of the—	311
Insular telegraph of, report of the superintendent of the—	315, 416
Public works of, list of employees of the—	323
Convict labor, road work in, by—	329
Departmental organization in, changes in the—	311
Director of health, charities, and corrections in, creation of the office of—	311
Disbursing officer of the bureau of public works of, report of the—	339
District engineer, report of the—	
Mayaguez—	368
Ponce—	357
San Juan—	348
Division of—	
Archives in, report of the chief of the—	425
Disbursements and accounts of, creation of the—	311
Heliograph service in—	417
Illustrations—	
Cancel bridge, Bayamon-Comerio road—	426
Convicts' camp at—	
Humacao—	426
Jayuya—interior of barracks—	426
Dajaos bridge, Bayamon-Comerio road—	426
Diagram showing road construction, 1859 to 1904—	426
Finished road—	
Bayamon-Comerio (bird's-eye view)—	426
Tallones-Adjuntas—steam roller used for consolidation—	426
Manati—	
Pier—	426
River, showing pier and natural abutment—	426
Map of—	426
Reconstruction of the street along the water front of San Juan Harbor—	426
Road No. 6, Tallones-Adjuntas section—	
Curve $3\frac{1}{2}$ kilometers from Adjuntas—	426
General view, kilometer 3 to kilometer 5—	426
Heaviest cut at Tallones—	426
One kilometer of heavy work at Tallones—	426
Rock cut and culvert at Tallones—	426
View looking from Tallones—	426
Submergible bridge, Anasco River—	
End view—	426
Side view—	426
Lands—	
Belonging to the people of, work of inspection, investigation, and classification of—	317
In, surveys and records of harbor—	332
Laws relating to the public works in—	385
Loan for public improvements in—	313

Porto Rico—Continued.

Page.

Commissioner of the interior for—Continued.

Public—

Buildings in—

Maintenance and repair of..... 331

Report of the supervisor of..... 373

Lands—

And buildings in, belonging to the Federal Government..... 312

Of, report of the acting chief of the bureau of..... 317

Roads in, permits for crossing and for other uses of the public domain..... 334

Works in—

Gratifying progress made in prosecuting the..... 312

Laws relating to the..... 385

Report of the acting superintendent of the bureau of..... 320

Railroad construction in..... 335

Recommendations of the..... 337

Report of the—

Acting—

Chief of the bureau of public lands of..... 317

Superintendent of the bureau of public works of..... 320

Chief of the—

Bureau of agriculture and mines in..... 422

Division of archives in..... 425

Disbursing officer of the bureau of public works of..... 339

Mayaguez, district engineer..... 368

Ponce, district engineer..... 357

San Juan, district engineer..... 348

Superintendent of the bureau of insular telegraph of..... 416

Surveyor and architect of the bureau of public works of..... 378

Roadwork in, by convict labor..... 329

Roads—

Constructed in, under the Spanish and American governments..... 321

In, need of good, the first requisite to the prosperity of the island..... 312

Surveyor and architect of the bureau of public works of, report of the..... 378

Surveys—

And records of harbor lands in..... 332

For new roads and bridge sites in..... 330

Post—

Office—

Department, business in Alaska under the supervision of the..... 23

Officials in Hawaii, roster of the..... 308

Offices in Alaska with name, date of appointment, and compensation of each postmaster..... 38

Practice School of the University of Porto Rico, report of the principal of the..... 720

Public—

Buildings in—

Hawaii—

Army, navy, Territorial, and private..... 179

Constructed during the year..... 225

Porto Rico—

Maintenance and repair of..... 331

Report of the supervisor of..... 373

Health and marine-hospital service in Alaska..... 24

Improvement bonds of Hawaii, first issue of..... 231

Instruction in Porto Rico, substantial progress made in all the departments of..... 429

Lands—

And—

Buildings in Porto Rico belonging to the Federal Government..... 312

Land laws of Hawaii, report in detail relative to..... 198-220

Of Porto Rico, report of the acting chief of the bureau of..... 317

Roads in Porto Rico, permits for crossing and for other uses of the public domain..... 334

Works—

Department in Hawaii, report in detail relative to the..... 220-229

Public—Continued.	Page.
Works in—Continued.	
Hawaii, department of, duties pertaining to	169
Porto Rico—	
Gratifying progress made in prosecuting the	312
Laws relating to the	385
Report of the acting superintendent of the bureau of	320
Q.	
Quartz mining in Alaska	32
R.	
Railroad—	
Construction in—	
Alaska, legislation pertaining to	11
Porto Rico	335
Facilities in Alaska, suggested Congressional encouragement of enterprises tending to promote	9
Rainfall in Hawaii	168
Rapid-transit service in Hawaii	287
Receipts—	
And disbursements of—	
Hawaii, 1900-1904	238, 241
The District Historical Library and Museum fund of Alaska	29
Of the public lands department of Hawaii	207
Recommendations of the—	
Commissioner of—	
Education for Porto Rico	463
The interior for Porto Rico	337
Governor of Hawaii	181
Register and directory of Hawaii for 1904	307
Report of the—	
Acting—	
Chief of the bureau of public lands of Porto Rico	317
Superintendent of the bureau of public works of Porto Rico	320
Chief of the—	
Bureau of agriculture and mines in Porto Rico	422
Division of archives in Porto Rico	425
Commissioner of—	
Education for Porto Rico	427
The interior for Porto Rico	309
Disbursing officer of the bureau of public works of Porto Rico	339
District engineer of—	
Mayaguez, P. R.	368
Ponce, P. R.	357
San Juan, P. R.	348
Governor of—	
Alaska	1
Hawaii	165
Superintendent of the bureau of insular telegraph of Porto Rico	416
Surveyor—	
And architect of the bureau of public works of Porto Rico	378
General of Alaska	91
Various departments of the government of Hawaii	185
Resources of Hawaii	167
Revenue-cutter service in Alaska	24
Road—	
Funds for the various islands in Hawaii, expenditures of	222
Overseers in Alaska, provision made for the appointment of	11, 48
Work—	
And bridges in Hawaii	222
In Porto Rico by convict labor	329
Roads—	
Constructed in Porto Rico under the Spanish and American governments	321
In Alaska, proposed construction of wagon	10

Roads in Porto Rico, need of good, the first requisite to the prosperity of the island	312
Roster of officials of Hawaii	307

S.

Salaries and pay roll of the department of public works in Hawaii	221
Salmon-canning industry of Alaska	31
School—	
Buildings—	
Constructed in—	
Hawaii, general reference to	225
Porto Rico, general reference to	450
In Porto Rico, report of the chief of the division of school extension of	646
Girls' Industrial, in Hawaii	198
Population of Porto Rico	431
Property and supply division of Porto Rico, report of the chief of the	641
Statistics of Porto Rico	430
Supervision and statistics in Porto Rico, statistical report of the chief of division of	460
Schools in—	
Alaska, population, markets, cost of living, etc.	117-130
Hawaii—	
Brief description of industrial	195
Enrollment of pupils in public and private, total	195
Lahainaluna educational establishment	197
Nationalities of—	
Pupils of the	191
Teachers of the	193
Pupils in sewing, agricultural, manual work, and drawing, number of	195
Schoolhouses and teachers' cottages	196
Teachers and pupils, number of	190
Waialeale Industrial School for Boys	197
Porto Rico—	
Aggregate number of days' attendance and actual teaching in	549-559
Average—	
Enrollment, daily attendance, and days of actual teaching per school in the	560-569
Number of pupils taught each day in, by municipalities and school districts	570
Buildings in use for, classified as town, rural, and agricultural, by municipalities and school districts	620
Distribution of—	
Pupils by—	
Age in	524-548
Grades in	502-524
Sex and color in	464-501, 623
Teachers in, by sex and color	574-613
Enrollment, attendance, etc., in the	433
Exhibit of pupils' work for Louisiana Purchase Exposition	461
Expenses of local boards of	633
Financial report of the disbursing officer relative to	456
Graded and industrial, buildings completed for, during the year	647
Improved enrollment and attendance in	462
Industrial, report of the supervising principal of	703
Receipts and disbursements of the teachers' summer-school fund	443
Report of the—	
High and graded	706
Supervisor of drawing in the	711
Teachers—	
Employed in the, total number of	432
Salaries, and general financial statistics relating to	434
Summer study trip to the United States	436
Total number of open, by municipalities and school districts	614
Work of American teachers of	445
Seal fisheries of Alaska, legislation pertaining to the	12

	Page.
Sealevel, Alaska, population of, with industrial, financial, and educational statistics.....	123
Shakan, Alaska, population of, with industrial, financial, and educational statistics.....	123, 128
Shipments of—	
Domestic merchandise from Alaska to the United States.....	65
Foreign merchandise from—	
Alaska to the United States.....	68
The United States to Alaska.....	64
Gold and silver from and to Alaska.....	69
Sisal industry in Hawaii.....	279
Sitka, Alaska, markets, valuations at.....	124
Skagway, Alaska, population of, with industrial, financial, and educational statistics.....	122
Social and fraternal organizations in Alaska.....	142
Statehood, strenuous objection to the admission of Alaska to.....	3
Statistics of Alaska.....	20
Steamship communication with Hawaii.....	295
Students from Porto Rico in the United States for literary and professional training	446
Sugar—	
Industry in Hawaii.....	270
The staple product of Hawaii.....	167
Survey, publications on Alaska, United States Geological.....	102
Surveying department of Hawaii, report in detail relative to the.....	261
Surveyor—	
And architect of the bureau of public works of Porto Rico, report of the.....	378
General of Alaska, report of the.....	91
Surveys—	
And records of harbor lands in Porto Rico.....	332
For new roads and bridge sites in Porto Rico.....	330
In Alaska, contracts entered into for.....	93

T.

Taxable property in Hawaii, assessed valuation of real and personal.....	235
Teachers—	
Institutes, inauguration of, in Porto Rico.....	448
Of schools in Porto Rico, work of American.....	445
Summer-study trip to the United States, report in detail relative to the.....	436, 724
Temperature of Hawaii.....	168
Tin-mining industry of Alaska.....	34
Trails in Alaska, description and proposed location of military.....	10
Transportation—	
Facilities of Alaska, the problem of greatest importance.....	7
Rates in Alaska, excessive.....	8
Treadwell, Alaska, population of, with industrial, financial, and educational statistics.....	121
Treasurer of Hawaii, report of the.....	229-241
Treasury Department—	
Business in Alaska under the supervision of the.....	23
Of Hawaii, roster of the.....	307

U.

United States—	
Commissioners in Alaska, criticism of.....	13
Courts in Alaska, officials of the.....	37
Customs district officials of Alaska.....	37
Naval station, Hawaii, officers of the.....	308
University of Porto Rico, national benefits resulting from the establishment of the.....	443

V.

Valdez, Alaska, population of, with industrial, financial, and educational statistics.....	122
Vanilla industry in Hawaii.....	281
Vessels—	
Entering and clearing in the district of Hawaii.....	295
Special landing places for, in Alaska.....	130

W.

Page.

Wagon roads in Alaska, proposed construction of.....	10
War Department, business in Alaska under the supervision of the.....	22
Water supply and systems for the islands of Hawaii.....	223
Wharfage system and improvements in Hawaii.....	224
White population of Alaska, by districts, estimate of the.....	6
Wrangell, Alaska, markets, valuations at.....	129

Y.

Yakutat, Alaska, markets, valuations at.....	126
Yukon River, Alaska, mail route.....	72

O

